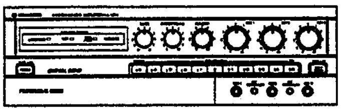
Service Manual

PIONEER®
The Art of Entertainment



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The chapter 1 of this Service Manual will not be reprinted. On your additional orders, we may supply only the chapter 2. For the chapter 1, please make copies and attach to the chapter 2 at your side if necessary.

STEREO MIXING AMPLIFIER

SA-V220

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model SA-V220	Power Requirement	Remarks
KUC	○	AC 120V	
SEZ	○	AC110-115V,120V,220-230V,240V(switchable)	

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CHAPTER 1

1.1 SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTES
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les piéces de remplacement doivent avoir la même désignation.

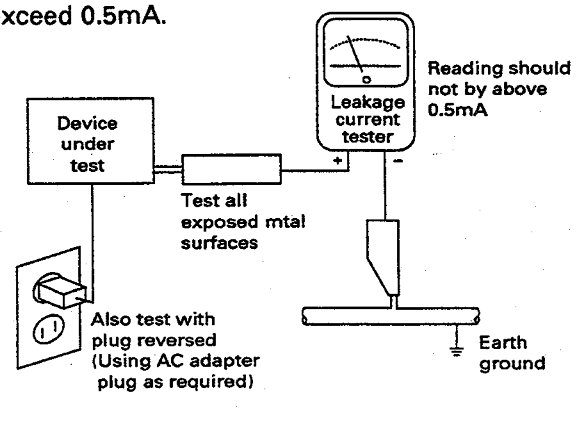
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Reading should not by above 0.5mA
Leakage current tester
Device under test
+
-
Test all exposed mtal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED LEFT ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.2 SPECIFICATIONS

(For KUC type)

Continuous Average Power Output is 120 Watts* per channel, min., at 4 ohms from 30 Hertz to 20,000 Hertz, with no more than 0.3 % total harmonic distortion.

**Measured pursuant to the Federal Trade Commission's Trade Regulation rules on Power Output Claims for Amplifiers.*

Continuous power output	
30 Hz - 20 kHz, T.H.D. 0.3 %, 8 Ω	85 W + 85 W
Total harmonic distortion	
(AUX IN, 1 kHz, 60 W, 8 Ω)	0.03%
Input Terminal (Sensitivity/Impedance)	
Audio	
MIC	2.5 mV/25 kΩ
VCR, TAPE/AUX	75 mV/50 kΩ
LASER DISC, CABLE	150 mV/50 kΩ
ADAPTOR input	150 mV/50 kΩ
Video	
LASER DISC, VCR/CAMERA	1 Vp-p/75 Ω
Output Terminal (Output level/Output impedance)	
Audio	
AUDIO OUTPUT (STEREO,MONO)	1 V/2.2 kΩ
TAPE REC	150 mV/4.4 kΩ
ADAPTOR	150 mV/2.2 kΩ
Video	
MONITOR, VCR/CAMERA	1 Vp-p/75 Ω
Speakers Terminal	
A or B	4 to 16 Ω
A and B	8 to 32 Ω

Frequency Response	
MIC	100 Hz to 10 kHz $^{+0}_{-3}$ dB
LASER DISC, CABLE, VCR, TAPE/AUX	10Hz to 30 kHz $^{+0}_{-3}$ dB
Tone Control (Music/Mic)	
BASS	$^{+14}_{-12}$ dB/ $^{+14}_{-13}$ dB (100 Hz)
TREBLE	$^{+11}_{-12}$ dB/ +[illegible] $_{-14}$ dB (10 kHz)
Echo delay time/decay time	130 to 210 msec / 0.6 - 2.5 sec
Key Control Range	± 2.5 musical intervals (11 positions)
Signal to Noise Ratio (EIA)	
MIC	76 dB
LASERDISC, CABLE, VCR, TAPE/AUX	70 dB

Power Supply/Miscellaneous

Power requirements	AC 120 V, 60 Hz
Power consumption	240 W, 320VA
AC outlets	
Switched	2 (TOTAL 200 W MAX)
Unswitched	1 (100 W MAX)
Dimensions	420 (W) × 130 (H) × 430 (D) mm 16-9/16 (W) × 5-1/8 (H) × 16-7/8 (D) in.
Weight (without package)	13.0 kg (28 lb 10.6oz)

Accessories

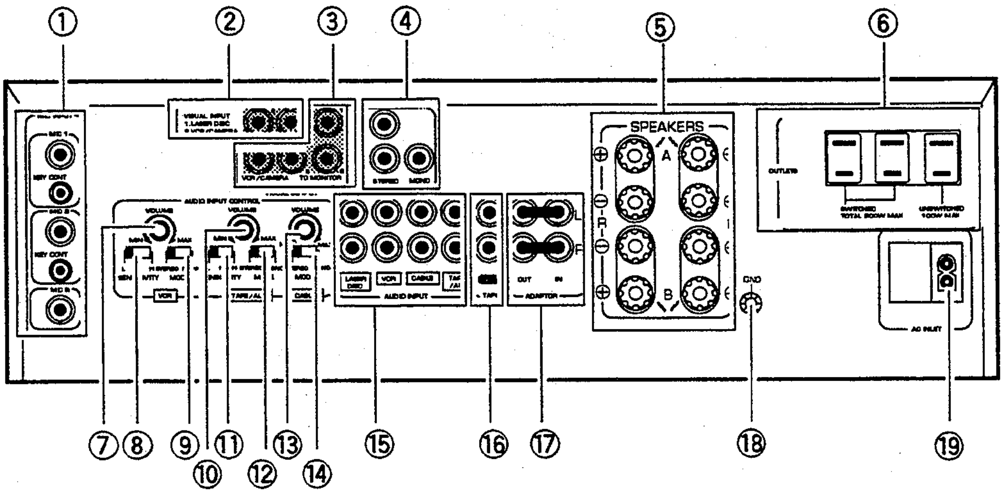
Audio cord	1
Power cord	1
Operating instructions	1

NOTE:

Specifications and design subject to possible modification without notice, due to improvements.

1.3 PANEL FACILITIES

REAR PANEL



① MIC INPUT jacks 1,2 and 3

Connect the MIC cable(s) of the optional video rack. The MIC INPUT jacks are also used for connection to the optional wireless mic receiver.

When using microphones with key control remote switch connected to MIC 1 and 2, connect the control cords to the KEY CONT jacks.

If a microphone is connected to the MIC jack on the front panel, front input has priority.

NOTES:

- *Position of the key controller may change by connecting/ disconnecting of the remote plug. In such a case, set it again to the desired position.*
- *For the key control function, both front and rear inputs are effective.*

② VISUAL INPUT jacks

1 LASER DISC

Connect to the VIDEO OUT jack of the LD player.

2 VCR/CAMERA

Connect to the VIDEO OUTPUT jack of the VCR or TV camera.

③ VISUAL OUTPUT jacks

TO MONITOR 1-3

Jacks for connection to the VIDEO INPUT jacks of TV monitors (maximum three monitors).

VCR/CAMERA ONLY

Signals input to the "VCR/CAMERA" VISUAL INPUT jack of the SA-V220 will always be output. By connecting to a TV monitor, you can monitor a VCR or video camera.

④ AUDIO OUTPUT jacks

STEREO

These jacks are used to output the L and R audio signals to the audio input jacks (LASER DISC, VCR, CABLE, TAPE/AUX) of this unit. (excluding MASTER VOLUME and BALANCE controls)

MONO

The L and R audio signals input to the audio input jacks (LASER DISC, VCR, CABLE, TAPE/AUX) always appear as L + R monaural.

⑤ SPEAKERS terminals

Two speaker systems (A and B) can be connected.

NOTE:

Always connect the plus (+) and minus (-) wires of the speakers to the speaker terminals of the same polarity. A polarity error can cause unnatural sound.

⑥ AC OUTLETS

SWITCHED (TOTAL 200W (1.6A) MAX.)

Power supplied through these outlets is turned ON and OFF by the SA-V220s POWER switch. Total electrical power consumption of connected equipment should not exceed 200 W.

UNSWITCHED (100W (0.8A) MAX.)

Power is always supplied to this outlet, regardless of the SA-V220 being switched ON or OFF. Electrical power consumption of connected equipment should not exceed 100 W.

NOTE:

Do not connect appliances with high power consumption such as heaters or irons to the AC OUTLETS in order to avoid overheating or fire risk.

This can cause the SA-V220 to malfunction.

⑦ VCR VOLUME control

Controls the volume of the VCR input jacks sound.

This control is normally centered but should be adjusted in accordance with the volume of the LASER DISC.

⑧ VCR SOURCE SELECTOR SENSITIVITY switch

Switch it for proper operation of the AUTO SOURCE SELECTOR function of the SA-V220.

M :Normal position

L :(When no LASER DISC signal is input.)
If "TAPE/AUX" or "CABLE" terminal is automatically selected even though VCR is being played, set to this position "L" to select VCR.

H :(When no LASER DISC signal is input.)
If "TAPE/AUX" or "CABLE" is not selected even though VCR finishes its playback, set to this position "H" to select "TAPE/AUX" or "CABLE".

⑨ VCR MODE switch

This switch is used to select the VCR audio modes (MONO/STEREO).
Connect a VCR with monophonic audio output either to "L" or "R" AUDIO INPUT jack and set this switch to "MONO".

⑩ TAPE/AUX VOLUME control

Controls the input sound level of devices connected to the TAPE/AUX input jacks. This control is normally centered but should be adjusted for LASER DISC.

⑪ TAPE/AUX SOURCE SELECTOR SENSITIVITY switch

Switch it for proper operation of the AUTO SOURCE SELECTOR function of the SA-V220.

M :Normal position

L :(When neither LASER DISC nor VCR signal is input.)
If "CABLE" is automatically selected even though "TAPE/AUX" signal is being played, set to this position "L" to select "TAPE/AUX".

H :(When neither LASER DISC nor VCR signal is input.)
If AUTO INPUT selector remains at "TAPE/AUX" even though TAPE/AUX finishes its playback, set to this position "H" to select "CABLE".

⑫ TAPE/AUX MODE switch

This switch is used to select audio modes (MONO/STEREO) of components connected to the TAPE/AUX input jacks.
Connect a component with monophonic audio output either to "L" or "R" AUDIO INPUT jack and set this switch to "MONO".

⑬ CABLE VOLUME control

Controls the volume of the CABLE input jacks sound.
This control is normally centered but should be adjusted in accordance with the volume of the LASER DISC.

⑭ CABLE MODE switch

Changes the audio mode (MONO/STEREO) of cable broadcasts. For mono cable broadcasts, connect to either the "L" or "R" channel and set the CABLE MODE switch to MONO.

⑮ AUDIO INPUT jacks

LASER DISC
Connect to the AUDIO jacks of a LD player.

VCR
Connect to the AUDIO OUT jacks of a VCR.

CABLE
Connect sound output terminals of wire broadcasting.

TAPE/AUX
Can be connected to the PLAY (OUTPUT) jacks of a cassette deck or to the OUTPUT jacks of other audio components.

⑯ TAPE REC jacks

Connect to the REC (INPUT) jacks of a cassette deck. Mic mixing recording will be possible, because signals processed with microphone mixing are output.

NOTES:
- *Sound of CABLE will not be output when the TAPE REC button is OFF.*
- *Sound of TAPE/AUX will not be output from this jack in any case.*

⑰ ADAPTOR IN/OUT jacks

Used to connect a graphic equalizer or a sound processor. The ADAPTOR IN/OUT jacks have a jumper plug. Install the jumper plugs when you do not use these jacks. Otherwise, there will be no sound output.

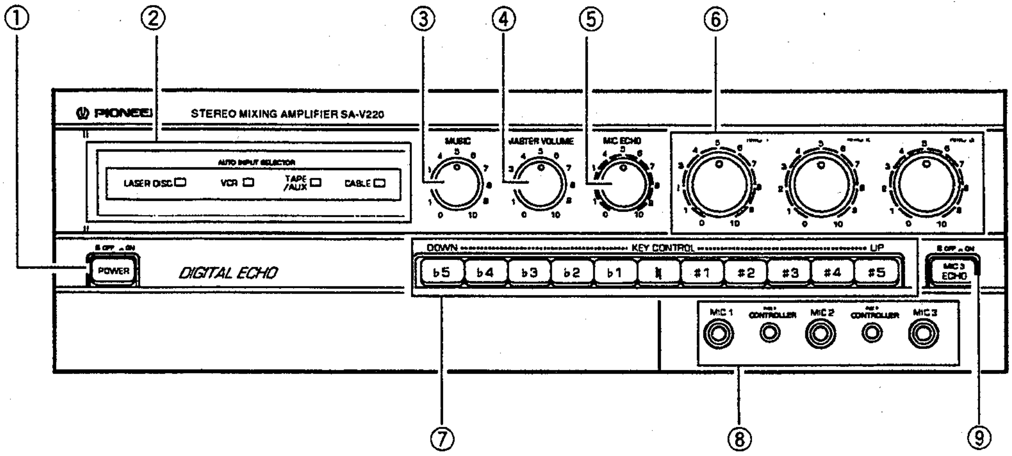
⑱ GND (Ground) terminal

Always ground this unit to prevent electrical shock and to avoid generating interference or noise in other equipment.

⑲ AC INLET jack

Connect one end of the power cord to here and the other end to an AC wall socket.
If you are going to be away from home for a long period of time, disconnect the unit from the wall socket.

FRONT PANEL



① POWER switch(■ OFF/ ▬ ON)

Pressing this switch turns ON the power.
Pressing this switch again turns OFF the power.

② AUTO INPUT SELECTOR indicators

This unit automatically select the input source signals with priority in the order of LASER DISC, VCR, TAPE/AUX, and CABLE.
These indicators display the output source accordingly.

③ MUSIC control

Controls the volume of equipments connected to the LASER DISC, VCR, TAPE/AUX and CABLE jacks on the rear panel.
Normally, keep the MASTER VOLUME control near the 5-7 position and use the MUSIC control to adjust the volume of the music source.

④ MASTER VOLUME control

Controls the volume of the sound from the speakers.

⑤ MIC ECHO control

Controls the echo levels for microphones 1,2 and 3 simultaneously.

NOTE:

When using a microphone, the original sound itself is processed as well as any effect sound such as an echo, which is added to the original sound.
When using an effect sound, set the MIC ECHO control to "3"~"4".

⑥ MIC volume controls (MIC 1,2 and 3)

To adjust the respective microphones volume level against the music source.
Normally, keep the MASTER VOLUME control near the 5-7 position and use the MIC controls to adjust the volumes.

⑦ KEY CONTROL buttons/indicators

Press to change the pitch of the music source.

♮	:Changes to the standard pitch.
♯1-♯5	:A maximum raise of five tones above the setting of the standard key is possible in semitone-steps.
♭1-♭5	:A maximum decrease of five tones below the setting of the standard key is possible in semitone-steps.

NOTE:

No key change is possible when "CABLE" has been selected by the input selector.

⑧ MIC and KEY CONTROLLER jacks

Three microphones can be connected simultaneously.
When using a microphone with key control switch, connect it to MIC 1 or MIC 2 jack. And be sure to connect the control cable to the KEY CONTROLLER jack.

NOTE:

KEY CONTROLLER jack

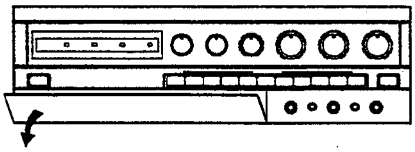
The set position of the key control might change when the control plug is connected to or removed from the KEY CONTROLLER jack. In such a case, reset to the desired position.

MIC jack

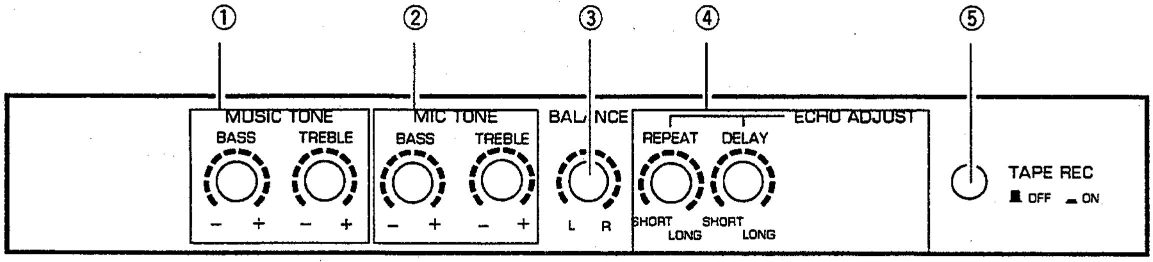
When a microphone is also connected to a MIC INPUT jack on the rear panel, the microphone connected to the front panel has priority. Note that there is no priority order with the key control function.

⑨ MIC 3 ECHO switch (■ OFF/ ▬ ON)

This switch controls only the echo for the microphone 3 input.



Open the front panel door.


①
②
③
④
⑤
MUSIC TONE
BASS
TREBLE
− + − +
MIC TONE
BASS
TREBLE
− + − +
BALANCE
L R
ECHO ADJUST
REPEAT
DELAY
SHORT LONG
SHORT LONG
TAPE REC
OFF ON

① MUSIC TONE control (BASS/TREBLE)

Adjusts the tone (bass/treble) of the device connected to the LASER DISC, VCR, CABLE or TAPE/AUX jack on the rear panel.

② MIC TONE control (BASS/TREBLE)

Can simultaneously adjust the tone of MIC 1,2 and 3. Adjusts bass and treble.

③ BALANCE control

Adjusts the sound balance of both speakers.

④ ECHO ADJUST control

Varies the echo characteristics of MIC 1,2 and 3.

REPEAT:Adjusts the timing of the echo (number of repetitions).

DELAY :Adjusts the repetition interval of the echo.

⑤ TAPE REC button

Setting this button to ON allows you to record cable broadcasts. Set the button to OFF when you are not recording cable broadcasting programs.

NOTE:

TAPE/AUX will not be selected by AUTO INPUT SELECTOR when this button is ON.

1.4 ADJUSTMENTS

1. Turn the DELAY VOL. (VR407) on the front panel to the center position.
2. Take out the DSP assy and open the front cover.
3. Connect the frequency counter between pin 8 of IC806 and GND (chassis).
4. Adjust VR801 to 2.3MHz ± 50kHz.

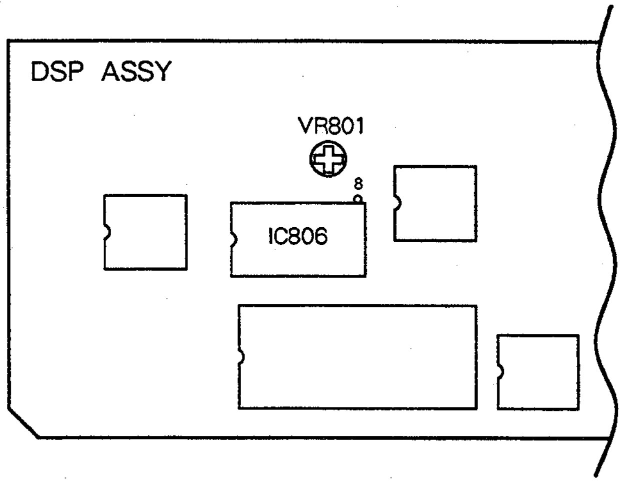


Fig. 1

1.5 PARTS LIST FOR EXPLODED VIEWS AND PACKING

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The "⚠" mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may by unavailable.*

- PART LIST(For SA-220/SEZ and KUC)

Mark	No.	Description	Parts No.
	1	PVC SEAT	AAK2596
	2	AL PANNEL	AAN1405
	3	BACK BOARD(PVC)	AEC1591
	4	FRONT PANEL	AMB2523
	5	DOOR PANNEL(SEZ)	ANB1825
	5	DOOR PANNEL(KUC)	ANB1823
⚠	6	Q3,Q4, Q7,Q8	2SA1516P(A)
⚠	7	Q1,Q2,Q5,Q6.	2SC3907P(A)
⚠	8	L8008	ATX1017
⚠	9	T1 POWER TRANSFORMER(SEZ)	ATS1366
⚠	9	T1 POWER TRANSFORMER(KUC)	ATS1365
⚠	10	S8009 VOLTAGE SELECTOR(SEZ)	AKX-507
⚠	11	TERMINAL SCREW	AKE-031
⚠	12	FU3,FU4,FUSE(T1.6A/250V)(SEZ)	AEK-510
⚠	12	FU3,FU4,FUSE(1,6A/125V)(KUC)	AEK-121
⚠	13	FU5,FUSE(T2.5A/250V)(SEZ)	AEK-512
⚠	13	FU5,FUSE(2,5A/125V)(KUC)	AEK-123
⚠	14	FU1,FU2,FUSE(T4A/250V)(SEZ)	AEK-514
⚠	15	FU1,FUSE(8A/125V)(KUC)	AEK1002
⚠	16	FU6,FUSE(5A/125V)(KUC)	AEK-308
⚠	17	AC POWER CORD	ADG1127
	18	J1 FLEXIBLE CABLE	ADD1111
	19	GROUND LEAD	ADX1179
NSP	20	EARTH LEAD	ADX1519
NSP	21	RIGHT FRAME	ANA1143
	22	REAR PANEL(SEZ)	ANC2243
	22	REAR PANEL(KUC)	ANC2242
NSP	23	BOTTOM PLATE	ANE-531
NSP	24	TRANS. FRAME	ANS-254
NSP	25	HEAT SINK	ANH-875
NSP	26	SUB HEAT SINK	ANH1339
	27	CABINET BUMPER	AEC-613
NSP	28	PCB HOLDER	ANG1940
	29	GROUND PLATE	ANK1074
NSP	30	GROUND PLATE	ANK1155
NSP	31	GROUND PLATE	ANK1156
NSP	32	PCB HOLDER A	BNG1028
	33	NYLON BINDER	AEC-093
	34	RIVET	AEC-441
	35	MICA SHEET	AEC-818
NSP	36	PCB SUPPORT	AEC1013
NSP	37	PCB SPACER	AEC1013
NSP	38	SPACER	AEC1363
	39	PURSE LOCK	AEP-076
NSP	40	INSULATOR(RUB)	AEZ1011
	41	PLUG	AKM1125
NSP	42	PCB MOULD	AMR2115
	43	DOOR PARTS(PLS)	AMR2303
NSP	44	JOINT(PLS)	AMR2677
NSP	45	GROUND PLATE	ANK1120
	46	SCREW (STEEL)	ABA-297
	47	SCREW	ABA-298
	48	SCREW WITH WASHER	ABA1005
	49	SCREW (STEEL)	ABA1006
	50	SCREW (STEEL)	ABA1009
	51	SCREW (STEEL)	ABA1011
	52	SCREW	ABA1015
	53	SCREW	ABA1024
	54	SCREW (STEEL)	ABA1047
	55	SCREW (STEEL)	ABA1048
	56	SCREW (STEEL)	ABA1073
	57	NUT	ABN-065
	58	SCREW	BPZ30P060FZK
	59	SCREW	BPZ30P080FMC
	60	SCREW	FBT40P080FZK
	61	SCREW	VBZ40P080FMC
	62	SCREW	VMZ30P060FZK
	63	BARRIER(PVC)	AEC1592
NSP	64	VOL SUPPORT PARTS(MTL)	AND1049
NSP	65	SHIELD	ANK1173
NSP	66	SHIELD CASE(MET)	ANK1489
	67	SEALING PANEL(PLS)	AAK2597
	68	PVC PANEL(PLS)	AAK2598
	69	NAME PLATE (METAL)	AAM1058
	70	VOLUME KNOB ASSY	AAB1279
	71	VOLUME KNOB ASSY	AAB1280
	72	KEY CON KNOB(♭5)	AAD2026
	73	KEY CON KNOB(♭4)	AAD2025
	74	KEY CON KNOB(♭3)	AAD2024
	75	KEY CON KNOB(♭2)	AAD2023
	76	KEY CON KNOB(♭1)	AAD2022
	77	KEY CON KNOB(♮)	AAD2021
	78	KEY CON KNOB(#1)	AAD2020
	79	KEY CON KNOB(#2)	AAD2019
	80	KEY CON KNOB(#3)	AAD2018
	81	KEY CON KNOB(#4)	AAD2017
	82	KEY CON KNOB(#5)	AAD2016
	83	MECA SW KNOB(PLS)	AAD2029
	84	PUSH KNOB(PLS)	AAD4086
	85	PUSH KNOB(PLS)	AAD4087
	86	OPE.INSTRUCTIONS(KUC) (English)	ARE1324
	86	OPE.INSTRUCTIONS(SEZ) (English, German, French, Italian, Spanish, Swedish, Dutch)	ARE1325
	87	PLUG CORD	ADE-044
	88	SIDE PAD L	AHA1436
	89	SIDE PAD R	AHA1437
	90	PACKING CASE	AHD2775
	91	SHEET	AHG-186
	92	BONNET	ANE1238
	93	FRONT ASSY	AWZ5627
	94	EXPAND ASSY	AWZ5628
	95	VOL ASSY	AWZ5629
	96	SP ASSY(SEZ)	AWZ5630
	96	SP ASSY(KUC)	AWZ5759
	97	AC ASSY(SEZ)	AWZ5631
	97	AC ASSY(KUC)	AWZ5721
	98	TONE ASSY	AWZ5705
	99	DSP ASSY	AWZ5632
	100	VIDEO ASSY	AWZ5633
	101	POWER ASSY	AWZ5637
	102	MIC ASSY	AWZ5638
	103	REG ASSY	AWZ5743
	104	BIAS ASSY	AWZ5744
	105	SELECT ASSY(SEZ)	AWZ3959
	105	SELECT ASSY(KUC)	AWZ3461
	106	REAR ASSY(SEZ)	AWZ3960
	106	REAR ASSY(KUC)	AWZ3462
	107	BAG	AHG-117

1.6 PCB PARTS LIST

NOTES:

- ***Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.***
- ***The "⚠" mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.***
- ***Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may by unavailable.***
- ***When ordering resistors, first convert resistance values into code form as shown in the following examples.***

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K =10%).

560Ω → 56 ×10 → 561 -- RD1/8PM 5 6 1 J
47kΩ → 47 ×10 → 473 -- RD1/4PS 4 7 3 J
0.5Ω → 0R5 -- RN2H 0 R 5 K
1Ω → 010 -- RS1P 0 1 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 5621 -- RN1/4PC 5 6 2 1 F

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
NSP		AF ASSY (SEZ)	AWK1508
NSP		AF ASSY (KUC)	AWK1435
		├─SELECT ASSY(SEZ)	AWZ3959
		├─SELECT ASSY(KUC)	AWZ3461
		├─REAR ASSY(SEZ)	AWZ3960
		└─REAR ASSY(KUC)	AWZ3462
NSP		COMPLEX ASSY(SEZ)	AWK1843
NSP		COMPLEX ASSY(KUC)	AWK1865
		├─FRONT ASSY	AWZ5627
		├─EXPAND ASSY	AWZ5628
		├─VOL ASSY	AWZ5629
		├─SP ASSY(SEZ)	AWZ5630
		├─SP ASSY(KUC)	AWZ5759
		├─AC ASSY(SEZ)	AWZ5631
		├─AC ASSY(KUC)	AWZ5721
		└─TONE ASSY	AWZ5705
NSP		DSP/VIDEO ASSY	AWK1844
		├─DSP ASSY	AWZ5632
		└─VIDEO ASSY	AWZ5633
NSP		MAIN ASSY	AWK1848
		├─POWER ASSY	AWZ5637
		├─MIC ASSY	AWZ5638
		├─REG ASSY	AWZ5743
		└─BIAS ASSY	AWZ5744
FRONT ASSY			
SEMICONDUCTORS			
	IC403		UPC4570C
	Q402 -Q41		DTC143ES
	Q401 ,Q412		XDA143ES
	D402 -D411		AEL1116
	D413 ,D415 -D417		AEL1128
	D401		AEL1142
SWITCHES AND RELAYS			
	S402		ASG1028

Mark	No.	Description	Parts No.
	S403 -S413		ASG1034
	S401		SEAV2S
CAPACITORS			
	C421 ,C422		CCDSL330J50
	C419 ,C420		CCDSL470J50
	C423 ,C424		CEGA470M16
	C434		CEGA4R7M50
	C409 ,C410		CEJA4R7M50
	C439		CKPUYF103Z25
	C415 ,C416 ,C437		CQMA122J50
	C411 ,C412 ,C435		CQMA123J50
	C413 ,C414 ,C436		CQMA473J50
	C417 ,C418 ,C438		CQMA562J50
RESISTORS			
	R476 ,R477		RD14PM101J
	VR406 ,VR407(20k)		ACS1071
	VR402 -VR405(100k)		ACS1072
	VR401(20k)		ACS1073
		Other Resistors	RD1/8PM□□□J
EXPAND ASSY			
SEMICONDUCTORS			
	IC804		PD0012A
	Q413 ,Q414		2SK246
	D419 -D423 ,D431		HSS104-02
CAPACITORS			
	C441		CEAS471M16
	C440 ,C442		CKDYB103K50
RESISTORS			
	R487		RA11T102J
		Other Resistors	RD1/8PM□□□J
OTHERS			
	J34	LEAD WIRE	ADX2132
	CN101	24P SOCKET	AKP1140
VOL ASSY			
SEMICONDUCTORS			
	IC303 ,IC304		NJM4558DXP

Mark	No.	Description	Parts No.
	IC301 ,IC302		UPC4570C
CAPACITORS			
	C311 ,C312 ,C331 -C333		CCDSL101J50
	C304 -C306		CCDSL330J50
	C307 -C310		CEAS100M50
	C313 ,C314		CEAS470M25
	C301 -C303		CEGA100M35
	C317 ,C318		CEXA471M25
	C316 ,C351		CKDYF473Z50
RESISTORS			
	VR306 (20k)		ACT1068
	VR301 -VR304 (20k)		ACT1069
	VR305 (100k)		ACT1070
		Other Resistor	RD1/8PM□□□J
OTHERS			
		CABLE HOLDER (3P)	AKT1076
	CN11		KPE15
	CN8		KPE5
	CN14		KPE7

SP ASSY(AWZ5630:SEZ)(AWZ5759:KUC)

COILS AND FILTERS			
	L1101 ,L1102(SEZ)(53UH)		ATH1009
	L1103,L1104(KUC)(0.7UH)		ATH1011
CAPACITORS			
	C1101 ,C1102 ,C1107 ,C1108		CKDYB102K50
	C1103 -C1106		CKDYB103K50
	C1109 -C1112 (SEZ)		CKDYF473Z50
RESISTORS			
	R1101 ,R1102 (SEZ)		RFA1/4PL101J
	R1101,R1102(KUC)		RD1/2PMFL100J
		Other Resistors	RD1/4PM□□□J
OTHERS			
		SPEAKER TERMINAL 8-P	AKE1011
		CABLE HOLDER (4P)	AKT1077

AC ASSY(AWZ5631:SEZ)(AWZ5721:KUC)

COILS AND FILTERS			
	L1001		ATF1006
SWITCHES AND RELAYS			
	S1001		ASG1077
CAPACITORS			
	C1001 -C1003 (0.01)		ACG1003
	C1004(KUC)		ACG1003
OTHERS			
	CN1001	AC INLET(1P)(SEZ)	AKP1132
	CN1001	AC INLET(1P)(KUC)	AKP1122
	CN1002	AC SOCKET(3P)(KUC)	AKP1053

TONE ASSY

SEMICONDUCTORS			
	IC401		NJM4558DXP
	IC402		UPC4570C

Mark	No.	Description	Parts No.
CAPACITORS			
	C451 ,C452		CCDSL030C50
	C425		CCDSL470J50
	C401 -C404		CEAS100M50
	C432 ,C433		CEAS470M16
	C428 ,C430 ,C431		CEGA100M35
	C407 ,C408		CEXA470M25
	C405 ,C406 ,C429		CKCYB471K50
	C453		CKDYB392K50
RESISTORS			
		All Resistors	RD1/8PM□□□J

DSP ASSY

SEMICONDUCTORS			
	IC812		LH5P832D-10T
	IC817		M51951BSL
	IC816		M5238PF
	IC805		M65831P
	IC810		MC14053BF
	IC802 -IC804 ,IC808 ,IC809		NJM4558DXP
	IC814 ,IC815		NJM4558DXP
	IC807		PD5238A
	IC811		PDQ001A
	IC806		SN74LS624N
	IC813		UPC78L05J
	Q809		2SA1048
	Q801		2SC1740S
	Q802		2SC3327
	Q804 -Q808		XDC143ES
	D802 -D805 ,D811		HSS104-02
	D807 ,D809 ,D810		RD5.1ESB
COILS AND FILTERS			
	F801 -F803		ATF1011
	L802		LAU221J
	L801 ,L803		LAU330J
CAPACITORS			
	C850		CCDCH820J50
	C8001 -C8003 ,C8011 ,C854 -C856		CCSQCH101J50
	C859 -C863 ,C872 -C874 ,C876		CCSQCH101J50
	C879 ,C880 ,C891		CCSQCH101J50
	C890 ,C899		CCSQCH151J50
	C887 ,C894		CCSQCH181J50
	C814 ,C823		CCSQCH221J50
	C8010 ,C8013		CCSQCH330J50
	C865 ,C866		CCSQCH390J50
	C812 ,C821		CCSQCH391J50
	C885 ,C892		CCSQCH680J50
	C817 ,C826		CCSQSL470J50
	C800		CEAS010M50
	C8012		CEAS100M50
	C805 ,C806 ,C809 ,C840 ,C842		CEAS101M10
	C858 ,C870 ,C878		CEAS101M10
	C8008 ,C8009 ,C801 ,C802		CEAS331M16
	C851,C852		CEAS331M16

Mark	No.	Description	Parts No.
	C8007 ,C8014 ,C8015 ,C831,C841		CEAS470M16
	C843 ,C846 ,C848 ,C853		CEAS470M16
	C8006		CEAS471M6
	C818 ,C827 ,C883 ,C884		CEAS4R7M50
	C897 ,C898		CEAS4R7M50
	C845		CEJA010M50
	C8004 ,C838		CEJA4R7M35
	C828		CEJAR15M50
	C881 ,C882		CFTYA104J50
	C839		CKCYB103K50
	C8005 ,C875		CKSQYB102K50
	C844 ,C847 ,C849 ,C888 ,C895		CKSQYB103K50
	C864		CKSQYB122K50
	C886 ,C893		CKSQYB123K50
	C816 ,C825		CKSQYB153K50
	C830 ,C836		CKSQYB332K50
	C810 ,C819 ,C889 ,C896		CKSQYB392K50
	C807 ,C808 ,C815 ,C824 ,C857		CKSQYB473K50
	C869 ,C877		CKSQYB473K50
	C813 ,C822		CKSQYB562K50
	C829 ,C835		CKSQYB681K50
	C811 ,C820		CKSQYB682K50
	C832 -C834 ,C837		CKSQYF104Z50
	C867 ,C868 ,C871		CQPA332G100
RESISTORS			
	R806 ,R807		RFA1/4PL681J
	VR801		VRTS6VS153
		Other Resistors	RS1/10S□□□J
OTHERS			
	CN1	24P SOCKET	AKP1149
	X802	CERAMIC RESONATOR	ASS1015
	X801	CERAMIC RESONATOR	ASS1031
VIDEO ASSY			
SEMICONDUCTORS			
	IC901		UPD4066BC
	Q915 ,Q919		2SA933S
	Q912		2SB560
	Q906 ,Q908 ,Q916		2SC1740S
	Q920		2SC3245(A)
	Q911		2SD438
	Q907		DTA124ES
	Q901		DTC124ES
	D903		HSS104-02
	D904		RD4.7ESB2
CAPACITORS			
	C921 ,C922		CCCSL101J50
	C917		CCCSL180J50
	C934		CCCSL390J50
	C924 ,C925		CCDCH270J50
	C929		CEAS010M50
	C916		CEAS101M10
	C942		CEAS102M10
	C930 ,C932 ,C933 ,C937		CEAS221M10
	C918		CEAS222M6
	C901 ,C902 ,C913 ,C936		CEAS330M16

Mark	No.	Description	Parts No.
	C938		CEAS471M6
	C919 ,C931 ,C935 ,C939		CFTXA103J50
	C923 ,C928		CFTXA473J50
	C940		CKDYB103K50
	C920		CKDYB391K50
	C927		CKDYF473Z50
RESISTORS			
	R952		RD1/4PMF100J
	R949		RD1/4PMFL100J
	R951 ,R959		RFA1/4PS100J
		Other Resistors	RD1/8PM□□□J
OTHERS			
	CN902	PIN JACK(2P)	AKB1146
	CN903	PIN JACK 1-P	AKB1139
	CN901	PIN JACK(6P)	AKB1183
	CN25	CONNECTOR(10P)	KPE10
	CN23	CONNECTOR(5P)	KPE5
	CN27	CONNECTOR(7P)	KPE7
POWER ASSY			
SEMICONDUCTORS			
	Q120		2SA1115
	Q107 ,Q108		2SA1145
	Q113 ,Q114		2SA1837
	Q131 -Q134		2SA992
	Q122		2SB560
	Q118 ,Q119		2SC1740S
	Q105 ,Q106 ,Q115 ,Q116 ,Q121		2SC1845
	Q109 ,Q110		2SC2705
	Q111 ,Q112		2SC4793
	D205 -D208 ,D217 -D220		10E2FD
	D213 ,D214		AEL1148
	D101 ,D102 ,D107 -D110		HSS104-02
	D115 -D121 ,D123 -D125		HSS104-02
	D130 -D134 ,D202 ,D203		HSS104-02
	D140		RD10ESB
	D122		RD12ESB2
	D204		RD4.7ESB2
	D111 -D114		RD5.6EB
	D210 ,D211 ,D221 ,D223 -D230		S5566
	D126		S5VB20F
COILS AND FILTERS			
⚠	L203		ATX1008
SWITCHES AND RELAYS			
	RY101		ASR1026
CAPACITORS			
	C147 ,C148 ,C185 ,C186 (0.047)		ACG-009
	C191 ,C192 (0.047)		ACG-009
	C156 ,C157 (12000/63)		ACH1108
	C181 ,C182		CCDSL151J50
	C163 ,C164		CEANPR22M50
	C175 ,C238		CEAS100M50
	C214		CEAS101M10
	C153 ,C226 -C229		CEAS101M25
	C129 ,C130		CEAS101M63
	C237		CEAS102M16

Mark	No.	Description	Parts No.
	C215		CEAS221M10
	C176		CEAS331M16
	C202 ,C203		CEAS332M35
	C155		CEAS3R3M100
	C230		CEAS470M25
	C152		CEAS471M6
	C121 ,C122		CEAS4R7M50
	C131 ,C132		CEEA101M1
	C127 ,C128		CEEA101M25
	C204 ,C205		CEHAQ470M25
	C239		CEJA100M50
	C179 ,C180		CEXA470M50
	C159 -C162		CFTXA104J50
	C195 ,C196 ,C217 ,C219 ,C220		CKDYB103K50
	C183 ,C184		CKDYF473Z50
	C137 ,C138		CMA070D500
	C133 ,C134		CMA120J500
	C143 -C146		CMA151J500
	C139 -C142		CQMA102J50
	C206		CQMA104J50
	C201		CQMA333K250
	C119 ,C120		CQMA472J50
	C173		CQMA473K250
	C135 ,C136		CQMA561J50
	C101 ,C102		CQSXA151J160
RESISTORS			
	R111 ,R112 ,R159 ,R160 (0.47)		ACN1112
	R135 ,R136		RD1/2PM114J
	R131 ,R132		RD1/2PM561J
	R141 ,R142		RD1/2PM683J
	R129 ,R130		RD1/4PM102J
	R175 ,R176		RD1/4PM153J
	R101 ,R102		RD1/4PM272J
	R163		RD1/4PM471J
	R147 ,R148		RD1/4PM562J
	R164		RD1/4PMF4R7J
	R117 ,R118		RD1/4PMFL100J
	R149 -R154		RD1/4PMFL101J
	R155 -R158		RD1/4PMFL151J
	R113 -R116 ,R143 ,R144		RFA1/4PS101J
	R103 -R110		RFA1/4PS4R7J
	R161 ,R162		RFA1/4PS680J
	R201 ,R202		RS1LMF100J
	R188		RS2LMF562J
		Other Resistors	RD1/8PM□□□J
OTHERS			
	CN16 ,CN18 ,CN19		KPC3
	CN20		KPC4
	CN21 ,CN22		KPC9
	CN17 ,CN24		KPE7

MIC ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC501 ,IC502		UPC4570C
	Q501 ,Q502		DTA143ES
	Q503 ,Q504		DTC143ES
COILS AND FILTERS			
	L501 -L503		LAU221K
CAPACITORS			
	C523 -C525		CCDSL100D50
	C511 -C513		CCDSL221J50
	C520 -C522		CCDSL330J50
	C526 -C528		CEGA4R7M50
	C532 ,C533		CEXA101M25
	C514 -C516		CFTYA683J50
	C501 ,C503 ,C505 ,C507 -C509		CKDYB102K50
	C502 ,C504 ,C506 ,C510		CKDYF103Z50
	C534 ,C535		CKDYX104M25
	C529 -C531		CQMA682J50
RESISTORS			
	R524 ,R525		RD1/4PMFL221J
		Other Resistors	RD1/8PM□□□J
OTHERS			
		JACK	AKN-210
		JACK	AKN1010

REG ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC201 ,IC204 ,IC206		NJM7805FAS
	IC205		NJM78M12FAS
	IC202		NJM79M05FA
	IC203		NJM79M12FA
CAPACITORS			
	C209 ,C211 ,C213 ,C223 ,C225		CEHAQ100M50
	C232		CEHAQ100M50
	C208 ,C210 ,C212 ,C222 ,C224		CKDYB103K50
	C231		CKDYB103K50

BIAS ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	Q101 ,Q102		2SC2603

SELECT ASSY(AWZ3959:SEZ)(AWZ3461:KUC)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC702-IC705 ,IC711(SEZ)		NJM4558DXP
	IC701,IC709,IC710(KUC)		UPC4570C
	IC706 -IC708		UPD4066BC
	Q701 -Q706 ,Q719 -Q721		2SC1845
	Q712 ,Q716 ,Q718		DTA124ES
	Q713 ,Q714		DTA143ES
	Q707 ,Q708		DTC124ES
	Q710 ,Q711		DTC143ES
	D701 -D704 ,D706 ,D707		HSS104-02
COILS AND FILTERS			
	L701 -L703		LAU221K
CAPACITORS			
	C703 ,C704 ,C711 ,C712		CCCSL151J50
	C719 ,C720		CCCSL151J50
	C727 ,C728		CCCSL181J50
	C729 ,C730 ,C753 -C755		CCCSL221J50
	C705 ,C706 ,C713 ,C714		CCCSL330J50

Mark	No.	Description	Parts No.
	C721 ,C722 ,C763 ,C764		CCCSL330J50
	C767 ,C768 ,C776 -C781		CCDSL330J50
	C784 ,C785(SEZ)		CCDSL330J50
	C782 ,C783		CCDSL470J50
	C746		CEAS010M50
	C733 ,C734		CEAS100M25
	C709 ,C710 ,C715 -C718		CEAS100M50
	C723 -C726 ,C756 -C761		CEAS100M50
	C771 ,C772		CEAS100M50
	C762 ,C765		CEAS101M16
	C731 ,C732		CEAS470M10
	C738 ,C743		CEASR33M50
	C701 ,C702 ,C707 ,C708		CEXA100M50
	C739 -C742 ,C769 ,C770		CEXA100M50
	C735 ,C736		CEXA101M25
	C750 -C752 ,C773 -C775		CKDYB102K50
	C766		CKDYB103K50
	C744 ,C745		CKDYF103Z50
	C747 -C749		CKDYF473Z50
	C737		CQMA472J50
RESISTORS			
	R1003 ,R790		RFA1/4PS330J
		Other Resistors	RD1/8PM☐☐☐J
OTHERS			
		PIN JACK 1-P	AKB1139
		JACK	AKN-210
	CN15	CONNECTOR(10P)	KPE10

REAR ASSY(AWZ3960:SEZ)(AWZ3642:KUC)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC601(SEZ)		M5238PF
	IC601(KUC)		NJM4558DXP
	IC602 ,IC603(SEZ)		NJM4558DXP
	IC602,IC603(KUC)		M5238PF
	Q603 -Q606		2SA1048
	Q607 -Q615 ,Q617 ,Q618		2SC3327
	Q601 ,Q602		DTC143ES
SWITCHES AND RELAYS			
	S604 ,S605		ASH1021
	S601 -S603		ASH1027
CAPACITORS			
	C623 ,C625		CCCSL330J50
	C619 ,C620 ,C624		CCDSL330J50
	C636 ,C637(SEZ)		CCDSL330J50
	C635		CCDSL470J50
	C626		CEAS100M50
	C609 ,C610		CEAS330M16
	C621 ,C622		CEXA100M50
	C615 ,C616		CEXA101M25
	C617 ,C618		CEXA470M25
	C601 -C608 ,C627 -C634		CKDYB391K50
	C638 -C641(SEZ)		CKDYF473Z50
	C613 ,C614		CQMA104J50
	C611 ,C612		CQMA223J50
RESISTORS			
	VR601 ,VR602 (100k)		ACT-188
	VR603 (20k)		ACT1067
		Other Resistors	RD1/8PM☐☐☐J
OTHERS			
		PIN JACK(4P)	AKB1101
		PIN JACK(6P)	AKB1129
	CN26	CONNECTOR(15P)	KPE15

Service Manual

PIONEER

The Art of Entertainment

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STEREO MIXING AMPLIFIER

SA-V220

CHAPTER 2

CONTENTS

2.1 EXPLODED VIEWS AND PACKING 2-3
2.2 SCHEMATIC AND PCB CONNECTION
DIGRAMS 2-6
2.3 BLOCK DIAGRAM 2-55

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. POBox 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE]N.V. Haven 1087 Keetberglaan 1,9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeaide, Victoria 3195, Australia TEL ; [03] 580-9911

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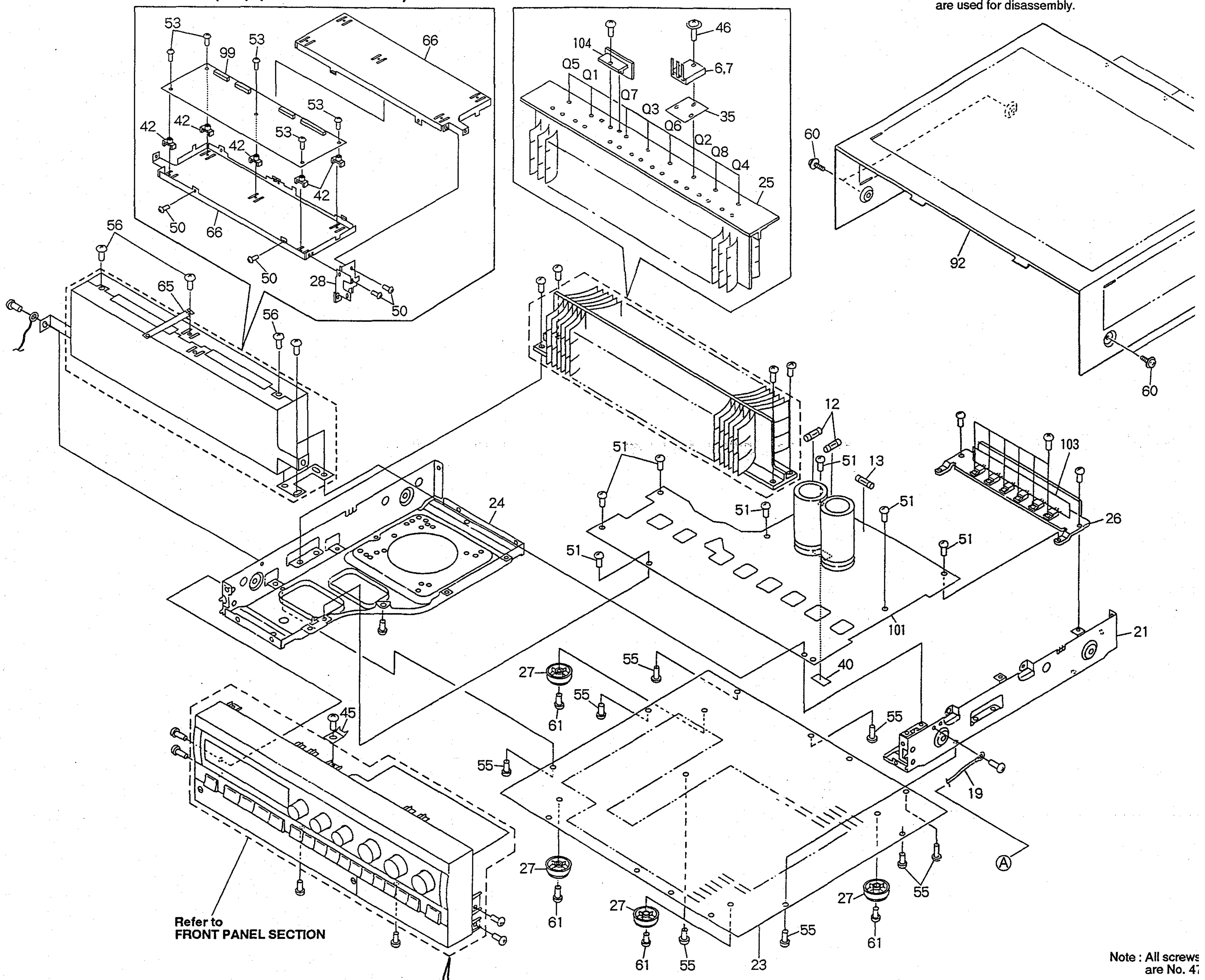
2.1 EXPLODED VIEWS AND PACKING

MAIN BODY SECTION (1/2) (Front side view)

NOTE: Screws adjacent to ▼ mark on the product are used for disassembly.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Q7
Q3
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Q6
Q2
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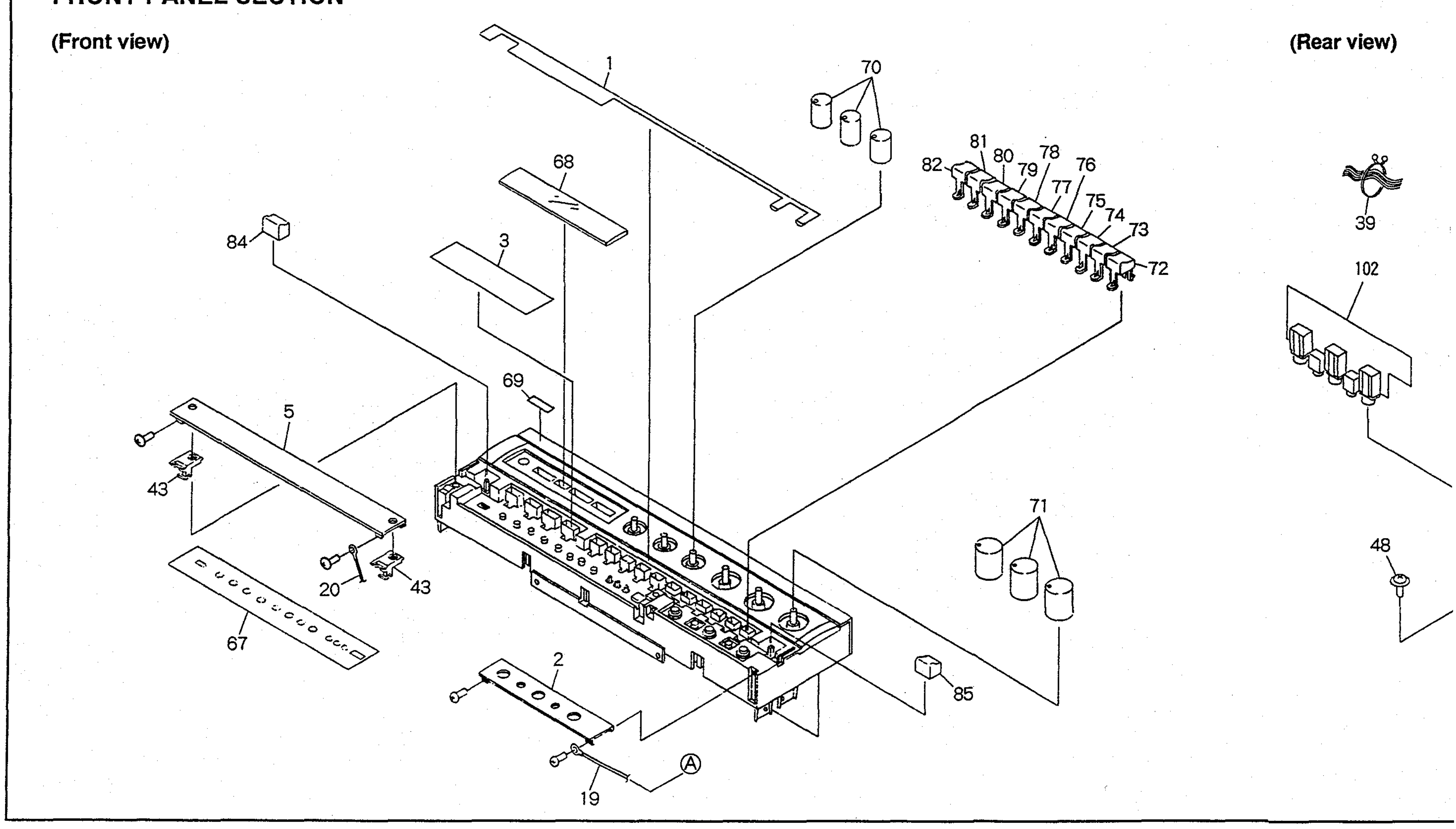
Refer to
FRONT PANEL SECTION

Note : All screws are No. 4

FRONT PANEL SECTION


(Front view)
(Rear view)
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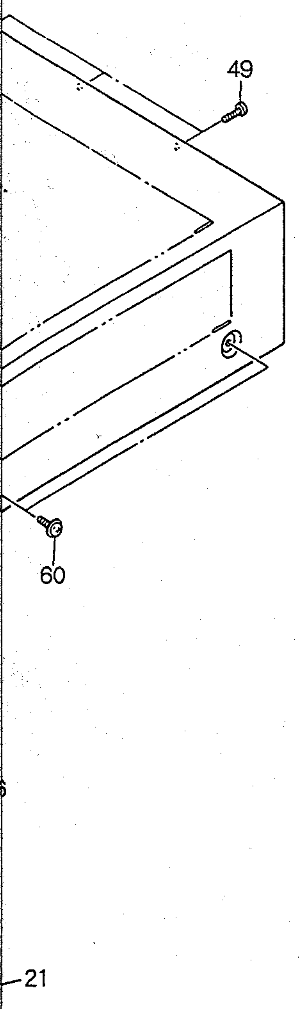
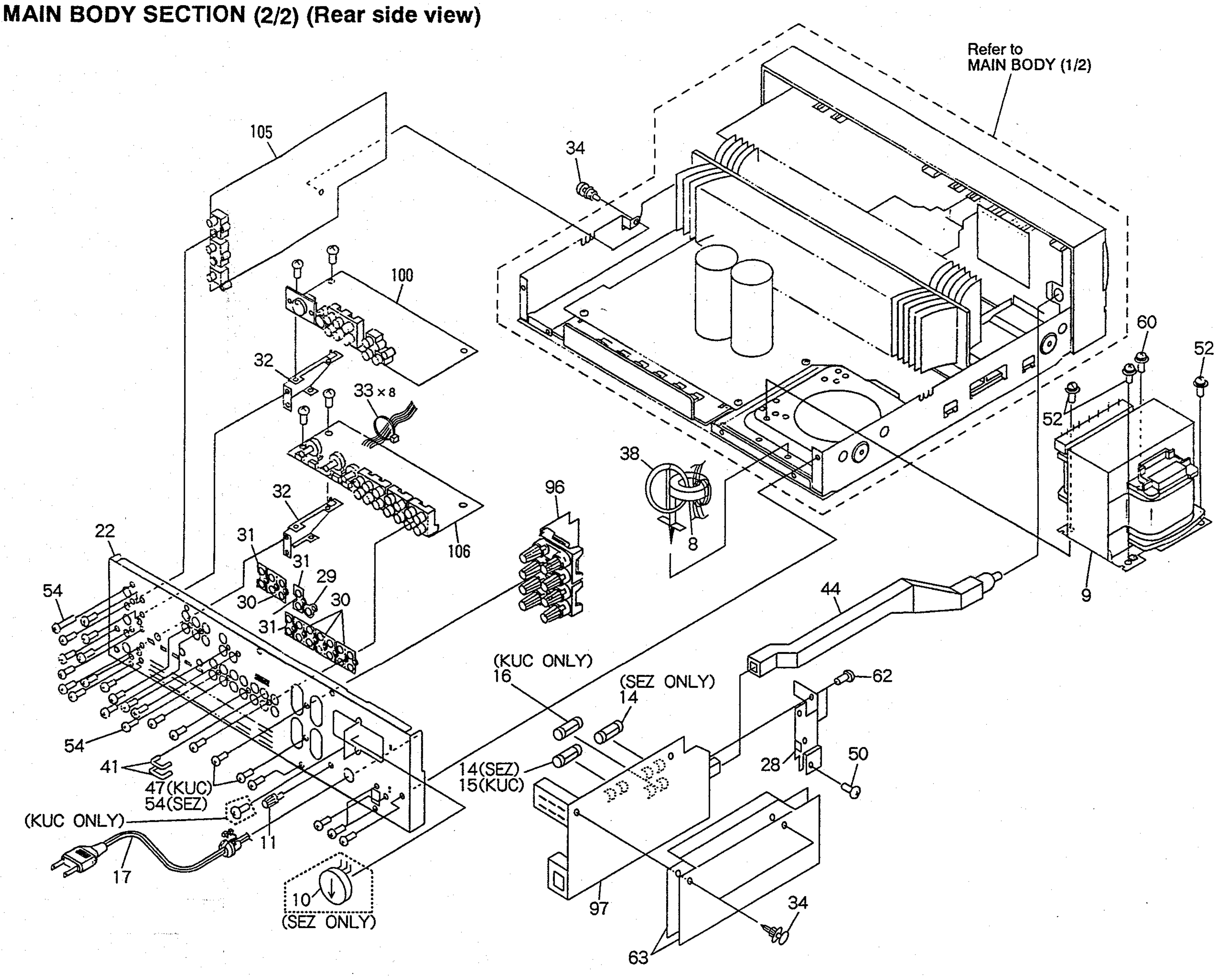
e product

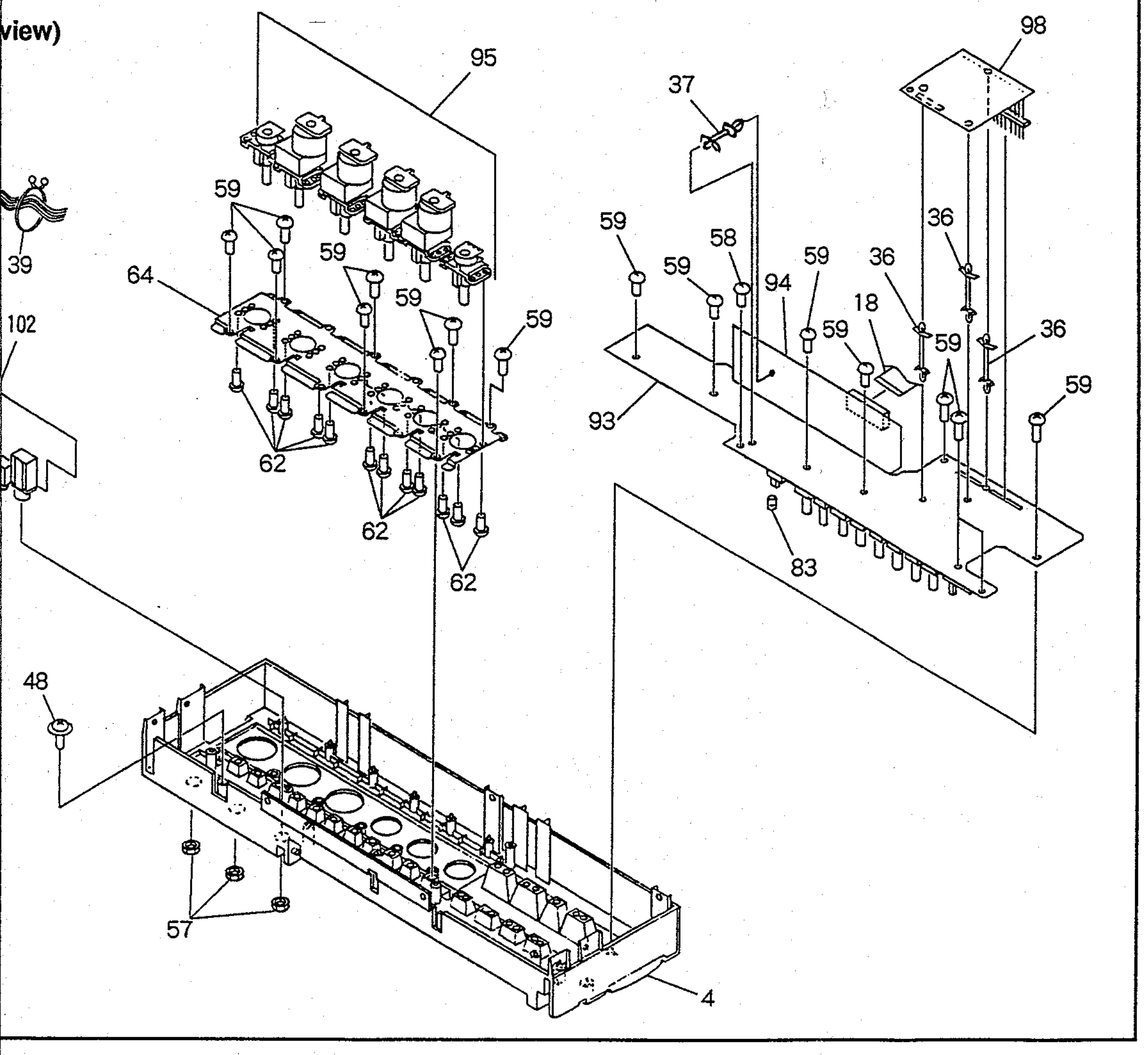


te : All screws that are not numbered
are No. 47 Screw (ABA-298).

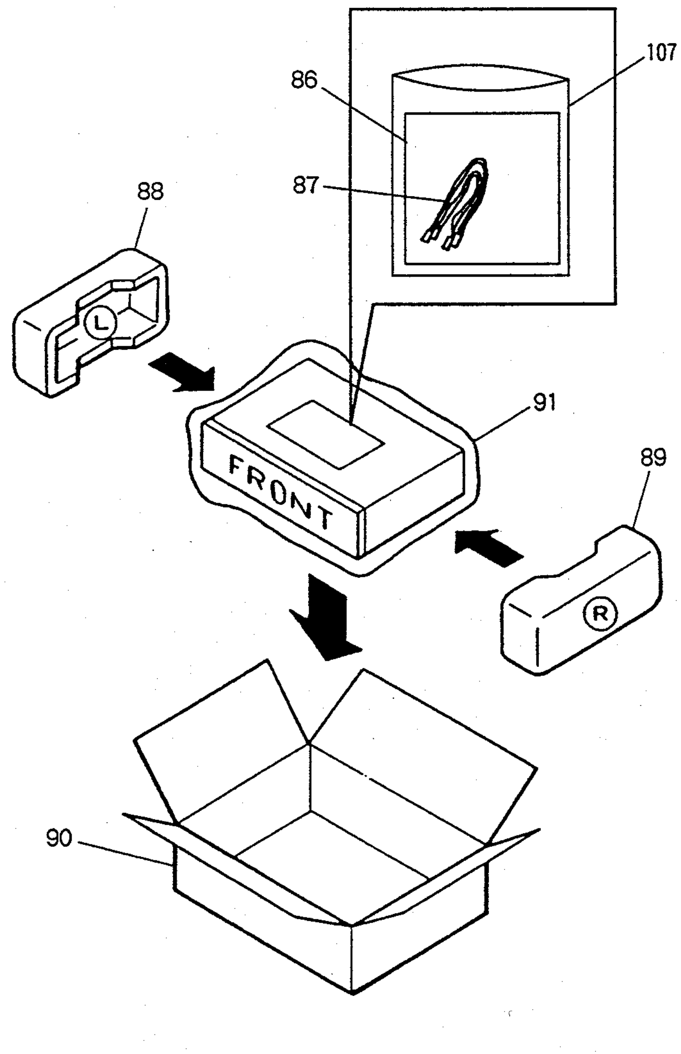
MAIN BODY SECTION (2/2) (Rear side view)


Refer to
MAIN BODY (1/2)
105
34
100
60
52
52
32
33×8
38
96
8
9
32
106
22
31
31
29
30
30
54
31
44
(KUC ONLY)
16
(SEZ ONLY)
14
62
54
50
41
47(KUC)
54(SEZ)
14(SEZ)
15(KUC)
28
(KUC ONLY)
11
17
10
(SEZ ONLY)
97
34
63

view)

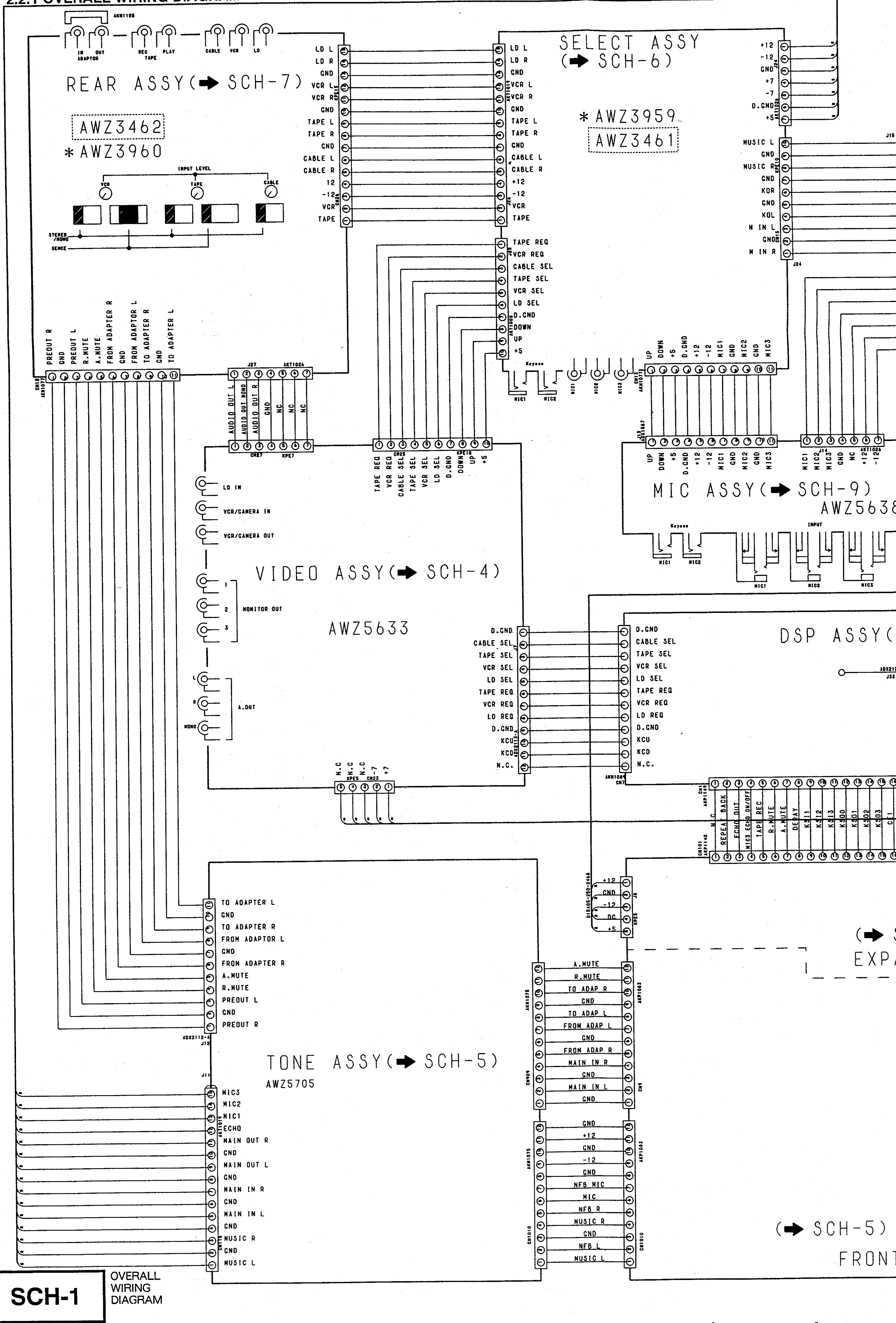

95
98
37
59
59
39
59
58
59
36
64
59
59
94
59
18
102
59
36
59
62
93
59
62
83
62
48
57
4

PACKING

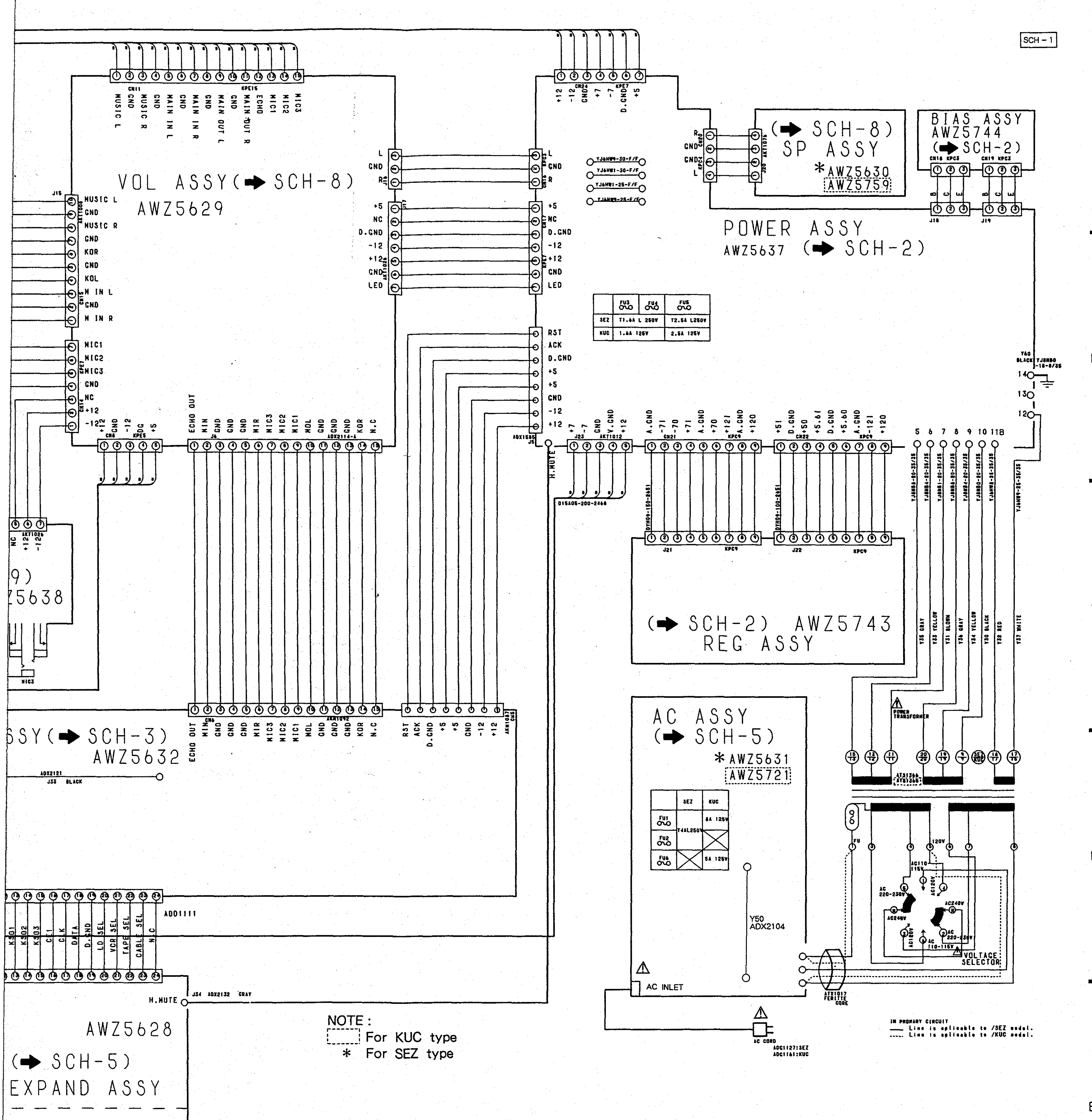

107
86
88
87
L
91
FRONT
89
R
90

2.2 SCHEMATIC AND PCB CONNECTION DIAGRAMS

2.2.1 OVERALL WIRING DIAGRAM


REAR ASSY (➡ SCH-7)
AWZ3462
* AWZ3960
AKM1126
IN OUT ADAPTOR
REC TAPE
PLAY
CABLE
VCR
LD
INPUT LEVEL
VCR
TAPE
CABLE
STEREO /MONO
SENCE
LD L
LD R
GND
VCR L
VCR R
GND
TAPE L
TAPE R
GND
CABLE L
CABLE R
12
-12
VCR
TAPE
SELECT ASSY (➡ SCH-6)
* AWZ3959
AWZ3461
+5
UP
DOWN
D.GND
LD SEL
VCR SEL
TAPE SEL
CABLE SEL
VCR REQ
TAPE REQ
Keysoo
MIC1
MIC2
MIC3
+12
-12
GND
+7
-7
D.GND
+5
MUSIC L
GND
MUSIC R
GND
KOR
GND
KOL
M IN L
GND
M IN R
J15
J24
PREOUT R
GND
PREOUT L
R.MUTE
A.MUTE
FROM ADAPTER R
GND
FROM ADAPTOR L
TO ADAPTER R
GND
TO ADAPTER L
CN12
J27
AKT1026
AUDIO OUT L
AUDIO OUT MONO
AUDIO OUT R
GND
NC
NC
NC
CN87
KPE7
CN25
KPE10
LD IN
VCR/CAMERA IN
VCR/CAMERA OUT
VIDEO ASSY (➡ SCH-4)
AWZ5633
1
2
3
MONITOR OUT
L
R
MONO
A.OUT
D.GND
CABLE SEL
TAPE SEL
VCR SEL
LD SEL
TAPE REQ
VCR REQ
LD REQ
D.GND
KCU
KCD
N.C.
N.C
N.C
N.C
-7
+7
KPE5
CN23
MIC ASSY (➡ SCH-9)
AWZ5638
INPUT
NC
DSP ASSY (
ADX2112
J33
AKM1084
CN7
CN1
REPEAT BACK
ECHO OUT
MIC3 ECHO ON/OFF
TAPE REC
R.MUTE
A.MUTE
DELAY
KS11
KS12
KS13
KS00
KS01
KS02
KS03
CE1
CN101
+12
GND
-12
DC
+5
D15A05-250-2468
J8
KPE5
(➡ S
EXPA
TO ADAPTER L
GND
TO ADAPTER R
FROM ADAPTOR L
GND
FROM ADAPTER R
A.MUTE
R.MUTE
PREOUT L
GND
PREOUT R
ADX2112-A
J12
TONE ASSY (➡ SCH-5)
AWZ5705
J11
MIC3
MIC2
MIC1
ECHO
MAIN OUT R
GND
MAIN OUT L
GND
MAIN IN R
GND
MAIN IN L
GND
MUSIC R
GND
MUSIC L
A.MUTE
R.MUTE
TO ADAP R
GND
TO ADAP L
FROM ADAP L
GND
FROM ADAP R
MAIN IN R
GND
MAIN IN L
GND
AKM1075
AKP1083
CN909
CN9
GND
+12
GND
-12
GND
NFB MIC
MIC
NFB R
MUSIC R
GND
NFB L
MUSIC L
CN1010
(➡ SCH-5)
FRONT
A
B
C
D
E
F
1
2
3
4

SCH-1 OVERALL WIRING DIAGRAM


VOL ASSY(➡ SCH-8)
AWZ5629
CN11
KPE15
MUSIC L
GND
MUSIC R
MAIN IN L
MAIN IN R
MAIN OUT L
MAIN OUT R
ECHO
MIC1
MIC2
MIC3
J15
KOR
KOL
M IN L
M IN R
CN14
KPE7
+12
-12
CN24
KPE7
+7
-7
D.GND
+5
L
GND
R
J16
+5
NC
D.GND
LED
RST
ACK
H.MUTE
(➡ SCH-8)
SP ASSY
*AWZ5630
AWZ5759
BIAS ASSY
AWZ5744
(➡ SCH-2)
CN18 KPC3
CN19 KPC3
B C E
J18
J19
POWER ASSY
AWZ5637 (➡ SCH-2)
YJ6HW4-30-F/F
YJ6HW1-30-F/F
YJ6HW1-25-F/F
FU3
FU4
FU5
SEZ
KUC
T1.6A L 250V
T2.5A L250V
1.6A 125V
2.5A 125V
Y40 BLACK YJ6HB0-18-8/35
14
13
12
5 6 7 8 9 10 11B
CN6 KPE5
ECHO OUT
MIN
MIR
NOL
N.C
J6
ADX2114-A
ADX1585
J5
J23 AKT1012
V.GND
A.GND
CN21 KPC9
CN22 KPC9
D15A05-200-2468
J21
J22
(➡ SCH-2) AWZ5743
REG ASSY
Y35 GRAY
Y32 YELLOW
Y31 BLOWN
Y34 GRAY
Y34 YELLOW
Y30 BLACK
Y38 RED
Y37 WHITE
AC ASSY
(➡ SCH-5)
*AWZ5631
AWZ5721
FU1
FU2
FU6
T4AL250V
8A 125V
5A 125V
Y50
ADX2104
AC INLET
POWER TRANSFORMER
ATX1017 FERITE CORE
VOLTACE SELECTOR
AC 220-230V
AC240V
AC110-115V
AC120V
120V
FU
AC CORD
ADC1127:SEZ
ADC1161:KUC
IN PRIMARY CIRCUIT
—— Line is aplicable to /SEZ model.
----- Line is aplicable to /KUC model.
9)
Z5638
MIC3
SSY(➡ SCH-3)
AWZ5632
ADX2121
J33 BLACK
RST
ACK
AKM1042
ADD1111
K301
K302
K303
CE1
CLK
DATA
D.GND
LD SEL
VCR SEL
TAPE SEL
CABLE SEL
N.C
H.MUTE
J34 ADX2132 GRAY
AWZ5628
(➡ SCH-5)
EXPAND ASSY
-5) AWZ5627
RONT ASSY

NOTE :
[ ] For KUC type
* For SEZ type

NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:
Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
Tolerance:(F):±1%, (G):±2%, (K):±10%, (M):±20% or ±5% unless otherwise noted.

4. CAPACITORS:
Unit : p:pF or μF unless otherwise noted.
Ratings : capacitor (μF) / voltage (V) unless otherwise noted.
Rated voltage : 50V except for electrolytic capacitors.

5. COILS:
Unit : m:mH or μH unless otherwise noted.

6. VOLTAGE AND CURRENT:
▭V : Signal voltage at rated output.
▭ or ←V :
DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.
⇐mA or ←mA :
DC current at no input signal unless otherwise noted.

7. OTHERS:
- ⊘ or ⊘ : Adjusting point.
- ◀ : Measurement point.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

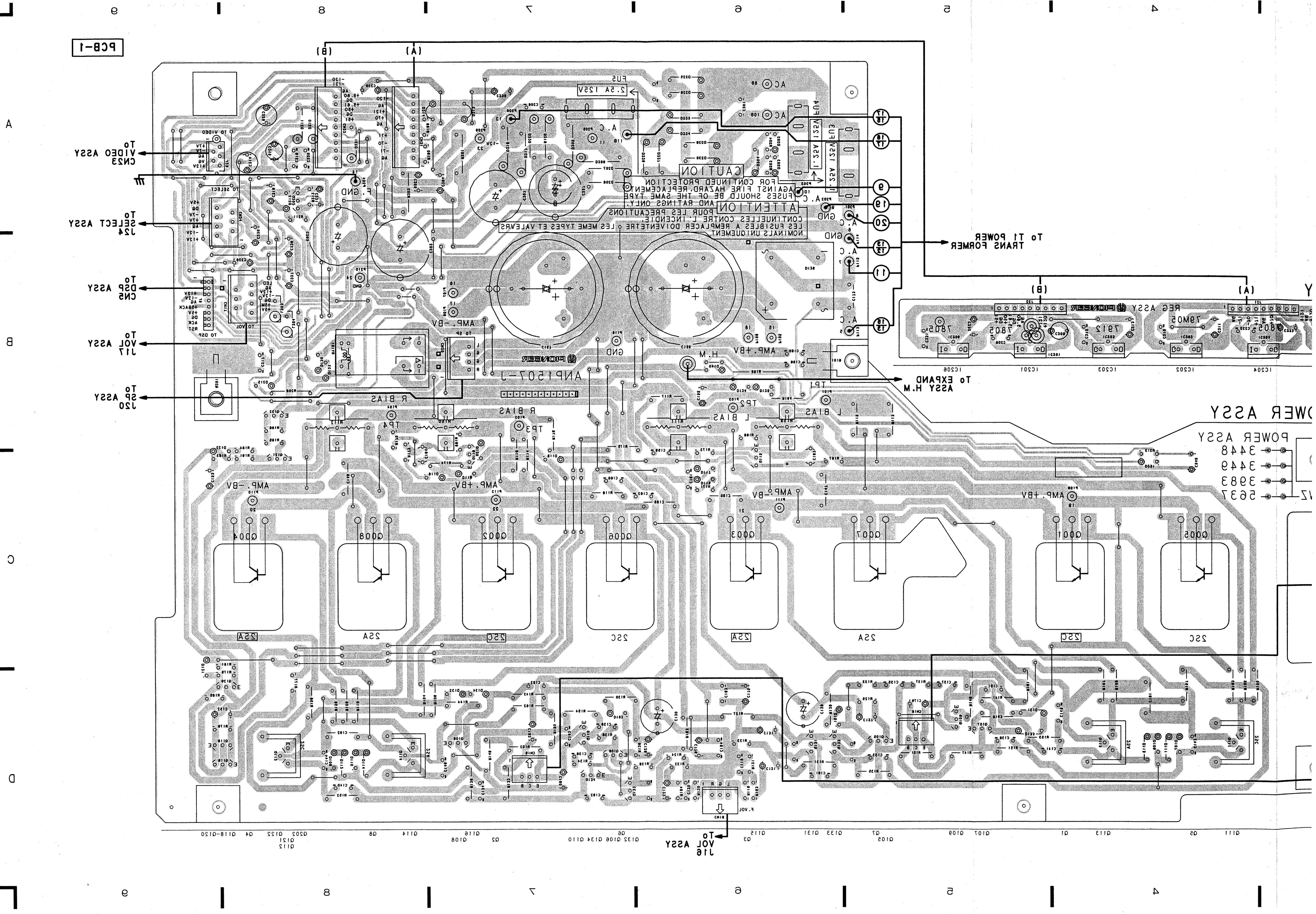
8. SCH – □ ON THE SCHEMATIC DIAGRAM:
- SCH– □ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (Underline indicates switch position):
FRONT ASSY
S401 :TAPE REC ON- OFF
S402 :MIC 3 ECHO ON- OFF
S403 : ♭5
S404 : ♭1
S405 : ♯3
S406 : ♭4
S407 : ♮
S408 : ♯4
S409 : ♭3
S410 : ♯1
S411 : ♯5
S412 : ♭2
S413 : ♯2
KEY CONTROL (S403–S413)

AC ASSY
S1001 :POWER ON- OFF

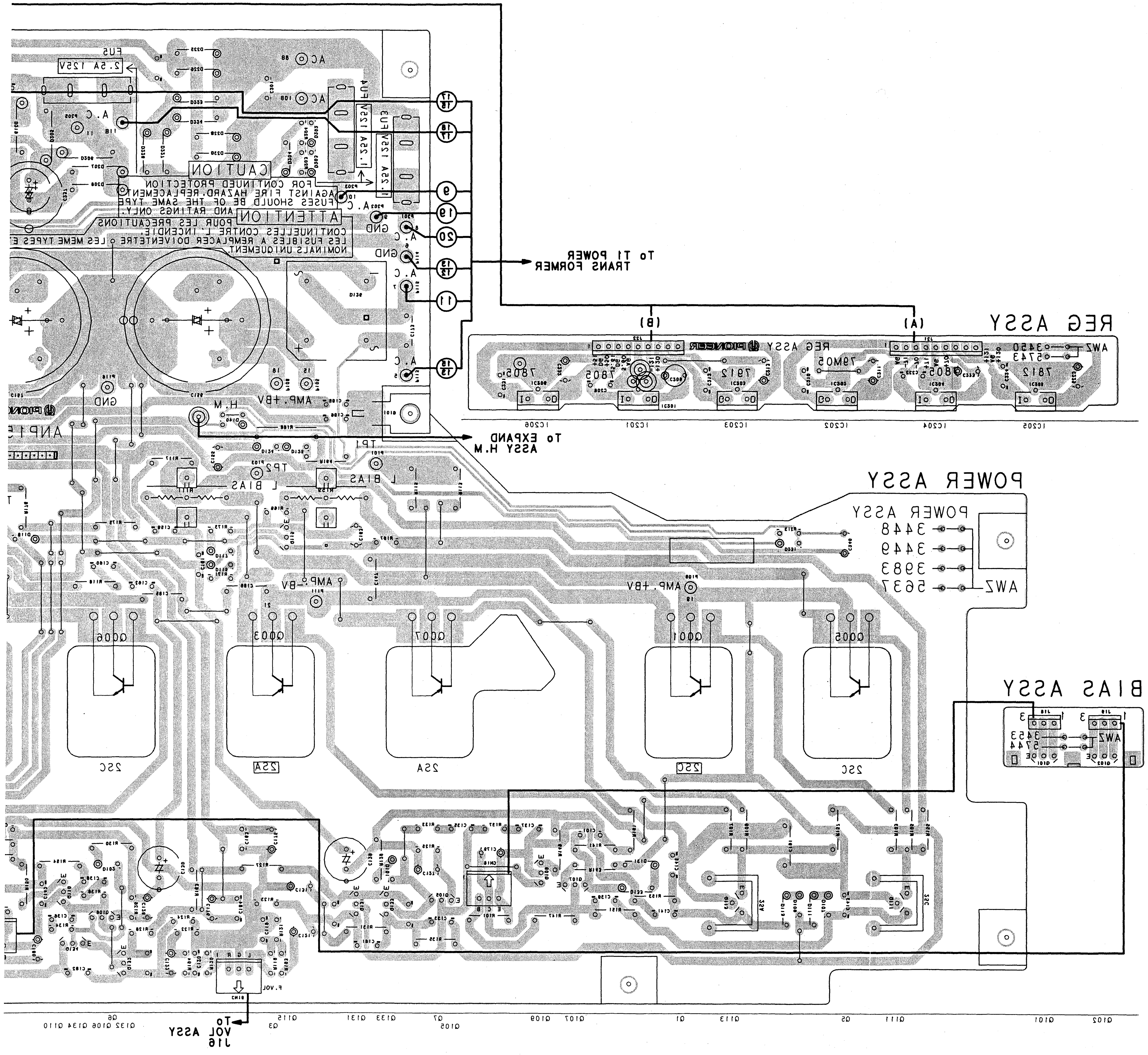
REAR ASSY
S601 :VCR MODE
S602 :TAPE/AUX MODE
S603 :CABLE MODE
S604 :VCR SOUCE SELECTOR SENSITIVITY
S605 :TAPE/AUX SOUCE SELECTOR SENSITIVITY

OVERALL
WIRING
DIAGRAM
SCH-1



PCB-1
9
8
7
6
5
4
A
B
C
D
To VIDEO ASSY CN23
To SELECT ASSY J24
To DSP ASSY CN5
To VOL ASSY J17
To SP ASSY J20
To T1 POWER TRANS FORMER
To EXPAND ASSY H.M
To VOL ASSY J16
(B)
(A)
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION
POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENTETRE LES MEME TYPES ET VALEVRS NOMINALS UNIQUEMENT.
FU5 2.5A 125V
FU3 12.5A 125V
FU4 12.5A 125V
ANP1507-J
PIONEER
R BIAS
L BIAS
TP1
TP2
TP3
TP4
AMP.-BV
AMP.+BV
GND
A.C
H.M
Q004
Q008
Q002
Q006
Q003
Q007
Q001
Q005
2SA
2SC
REG ASSY
7805
7912
79M05
IC201
IC202
IC203
IC204
IC206
POWER ASSY
3448
3449
3983
5637
F.VOL
Q118-Q120
Q4
Q122
Q202
Q121
Q112
Q8
Q114
Q116
Q108
Q2
Q6
Q132
Q106
Q134
Q110
Q115
Q3
Q131
Q133
Q7
Q105
Q109
Q107
Q1
Q113
Q5
Q111

2.2.2 POWER, BIAS AND REG ASSEMBLIES

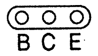
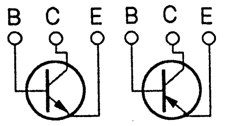
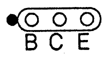
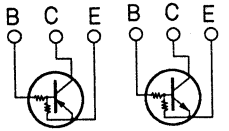
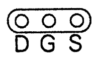
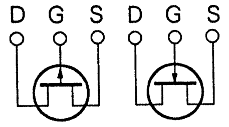
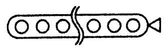
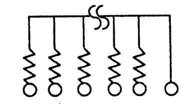
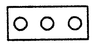
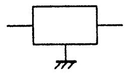

REG ASSY
(A)
(B)
AWZ
3450
5743
7812
7805
79M05
7912
IC201
IC202
IC203
IC204
IC205
IC206
POWER ASSY
3448
3449
3983
5637
AWZ
BIAS ASSY
3453
5744
AWZ
To T1 POWER TRANS FORMER
To EXPAND ASSY H.M
To VOL ASSY J16
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION
POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE, LES FUSIBLES A REMPLACER DOIVENT ETRE LES MEME TYPES ET NOMINALS UNIQUEMENT.
2.5A 125V
AC
GND
H.M
AMP +BV
L BIAS
TP1
TP2
Q001
Q003
Q005
Q006
Q007
2SC
2SA
F.VOL
A
B
C
D
1
2
3
4
5
6

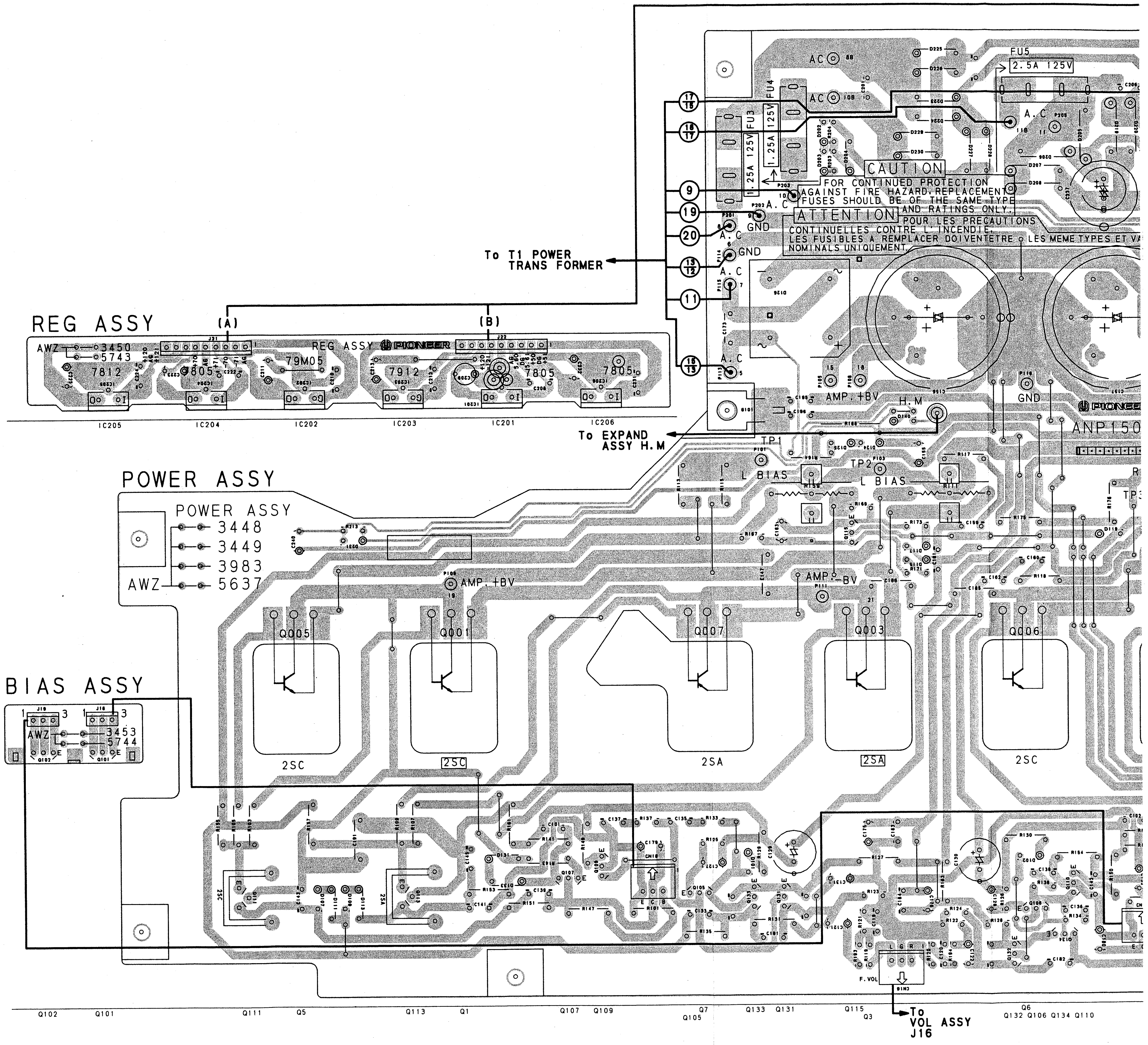
• This diagram is viewed from the foil side.

2.2.2 POWER, BIAS AND REG ASSEMBLIES

NOTE FOR PCB DIAGRAMS:

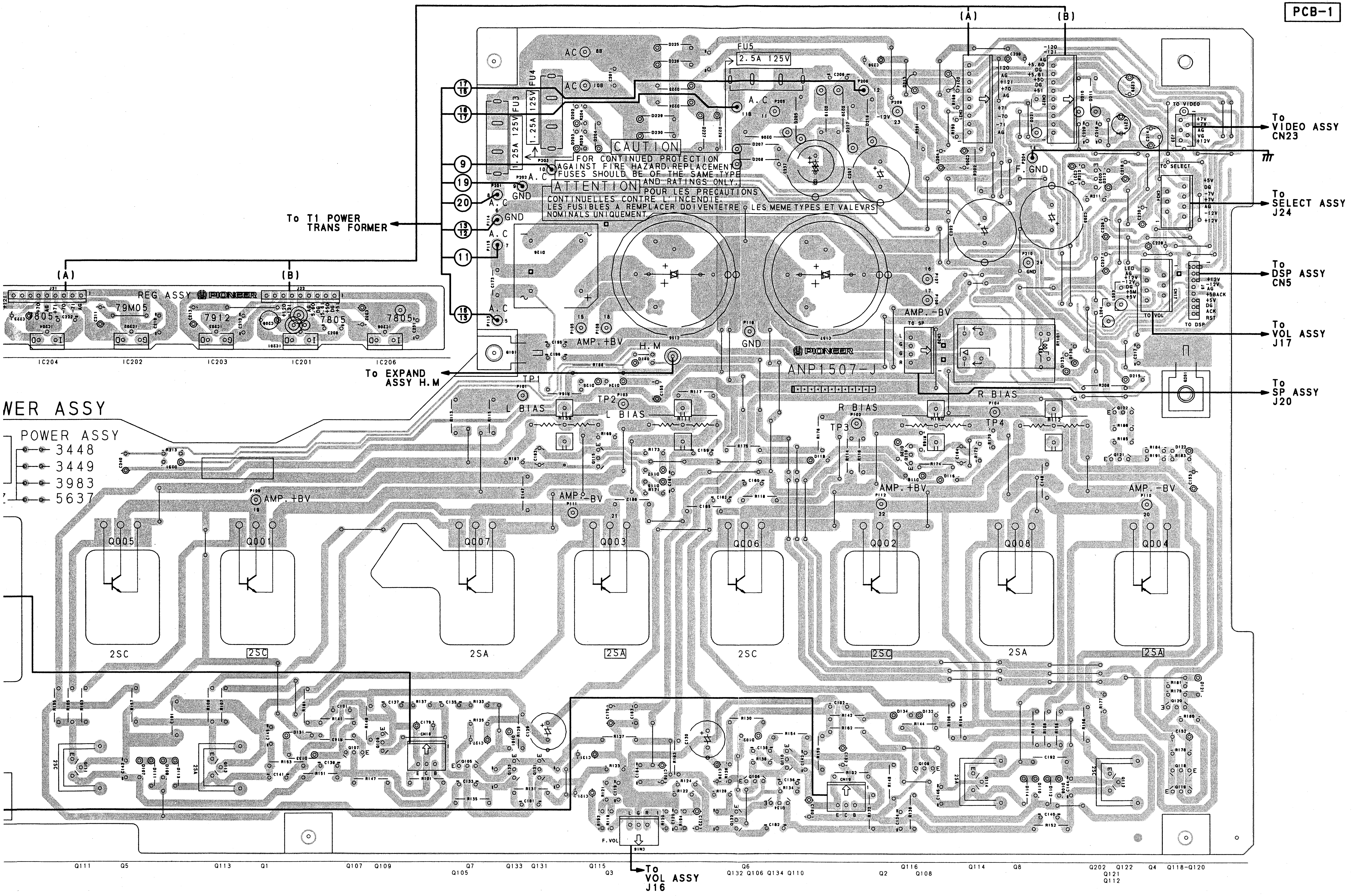
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

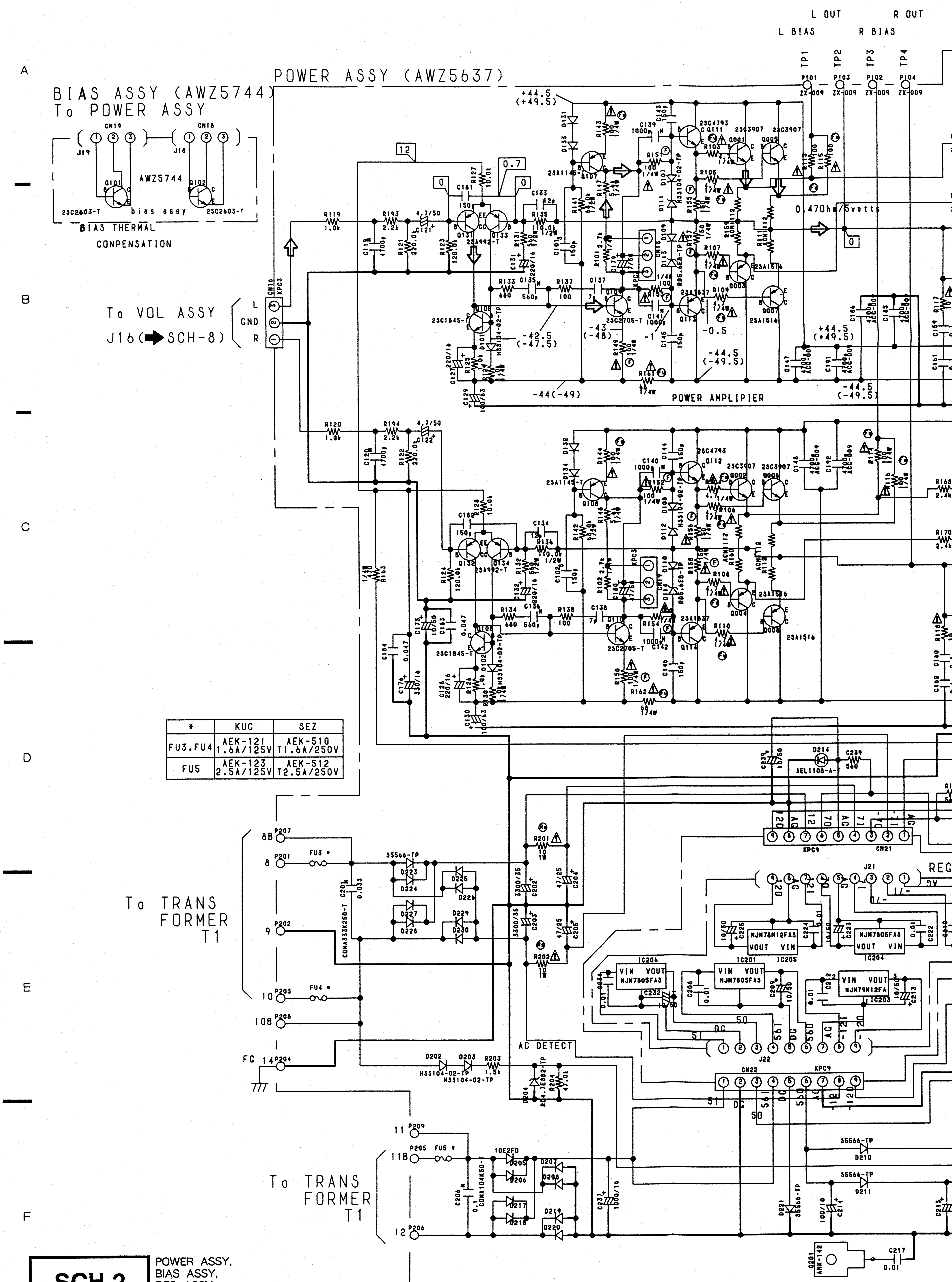


To T1 POWER TRANS FORMER
REG ASSY
(A)
(B)
AWZ 3450 5743
7812
79M05
7912
7805
7805
REG ASSY PIONEER
IC205
IC204
IC202
IC203
IC201
IC206
FU5 2.5A 125V
FU4 1.25A 125V
FU3 1.25A 125V
AC
A.C
GND
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION
POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE LES FUSIBLES A REMPLACER DOIVENTETRE LES MEME TYPES ET VA NOMINALS UNIQUEMENT
AMP. +BV
H.M
GND
To EXPAND ASSY H.M
ANP150
TP1
TP2
L BIAS
POWER ASSY
POWER ASSY
AWZ 3448 3449 3983 5637
AMP. +BV
AMP. -BV
Q005
Q001
Q007
Q003
Q006
2SC
2SC
2SA
2SA
2SC
BIAS ASSY
J19
J18
AWZ 3453 5744
Q102
Q101
F.VOL
To VOL ASSY J16
Q102 Q101 Q111 Q5 Q113 Q1 Q107 Q109 Q7 Q105 Q133 Q131 Q115 Q3 Q6 Q132 Q106 Q134 Q110

- This diagram is viewed from the mounted parts side.



PCB-1
(A)
(B)
To T1 POWER TRANS FORMER
To VIDEO ASSY CN23
To SELECT ASSY J24
To DSP ASSY CN5
To VOL ASSY J17
To SP ASSY J20
To EXPAND ASSY H.M
To VOL ASSY J16
REG ASSY
PIONEER
79M05
7912
7805
7805
7805
IC204
IC202
IC203
IC201
IC206
WER ASSY
POWER ASSY
3448
3449
3983
5637
FU3 1.25A 125V
FU4 1.25A 125V
FU5 2.5A 125V
CAUTION
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,REPLACEMENT FUSES SHOULD BE OF THE SAME TYPE AND RATINGS ONLY.
ATTENTION
POUR LES PRECAUTIONS CONTINUELLES CONTRE L'INCENDIE. LES FUSIBLES A REMPLACER DOIVENTETRE LES MEME TYPES ET VALEVRS NOMINALS UNIQUEMENT.
AC
A.C
GND
H.M
AMP.+BV
AMP.-BV
TP1
TP2
TP3
TP4
L BIAS
R BIAS
ANP1507-J
TO SP
TO VIDEO
TO SELECT
TO VOL
TO DSP
F.VOL
Q005
Q001
Q007
Q003
Q006
Q002
Q008
Q004
2SC
2SA
Q111 Q5 Q113 Q1 Q107 Q109 Q7 Q105 Q133 Q131 Q115 Q3 Q6 Q132 Q106 Q134 Q110 Q2 Q116 Q108 Q114 Q8 Q202 Q122 Q121 Q112 Q4 Q118-Q120
4 5 6 7 8 9
A B C D



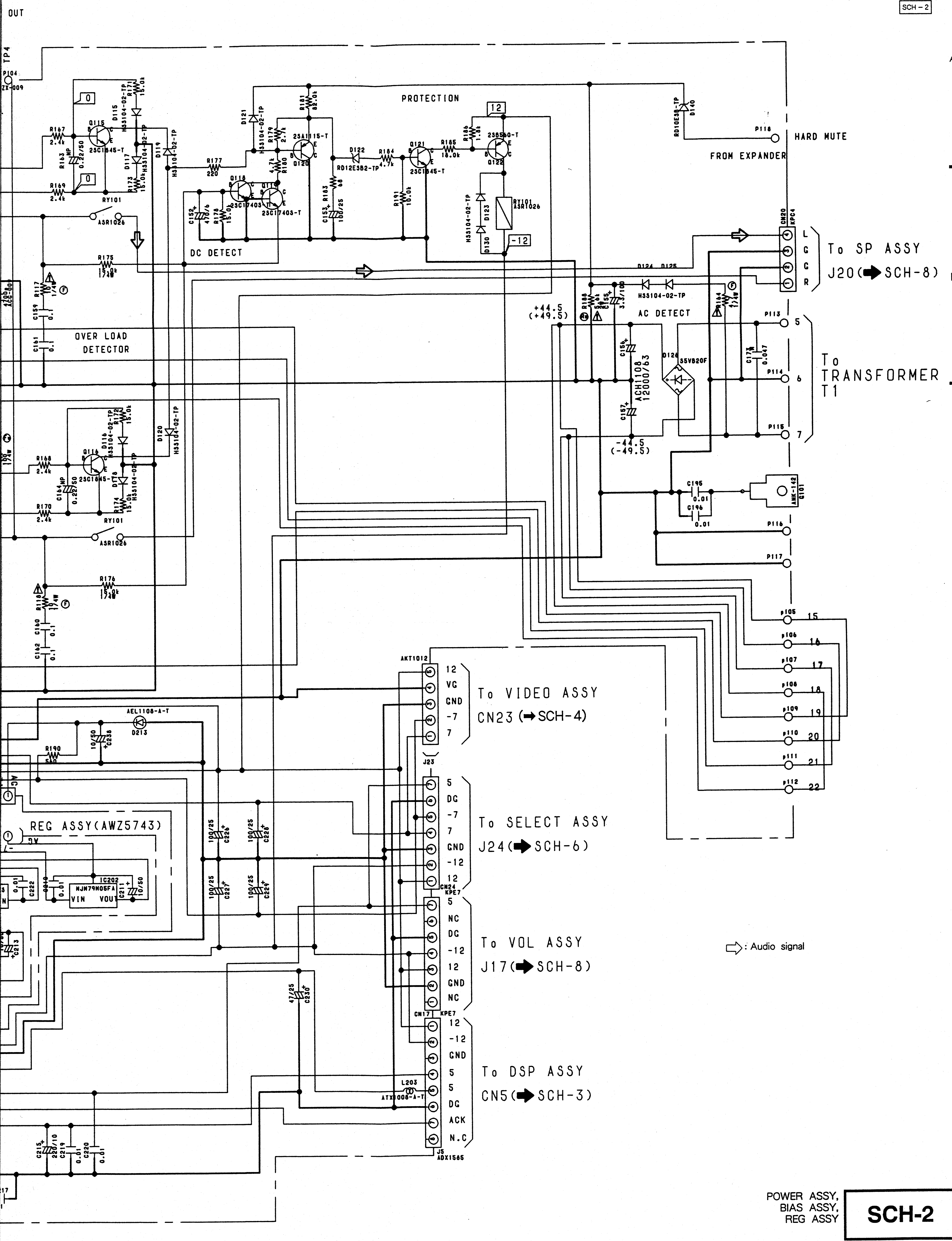
1
2
3
4
A
B
C
D
E
F
L OUT
R OUT
L BIAS
R BIAS
TP1
TP2
TP3
TP4
P101
P103
P102
P104
ZX-009
POWER ASSY (AWZ5637)
BIAS ASSY (AWZ5744)
To POWER ASSY
CN19
CN18
J19
J18
AWZ5744
Q101
Q102
2SC2603-T
bias assy
BIAS THERMAL
CONPENSATION
To VOL ASSY
J16(➡SCH-8)
L
GND
R
CN16
KPC3
+44.5
(+49.5)
-42.5
(-47.5)
-43
(-48)
-1
-0.5
-44.5
(-49.5)
-44(-49)
POWER AMPLIFIER
0.470hm/5watts
2SC4793
2SC3907
2SA1145
2SA992-T
2SC1845-T
2SC2705-T
2SA1837
2SA1516
HSS104-02-TP
RD5.6EB-TP
12
0.7
0
To TRANS
FORMER
T1
8B
8
9
10
10B
FG 14
11
11B
12
P207
P201
P202
P203
P208
P204
P209
P205
P206
FU3 *
FU4 *
FU5 *
AC DETECT
D214
AEL1106-A-T
KPC9
CN21
CN22
J21
J22
REG
NJM78M12FAS
NJM7805FAS
NJM79M12FA
VIN VOUT
IC201
IC203
IC204
IC205
IC206
C201
ANK-142

*	KUC	SEZ
FU3,FU4	AEK-121 1.6A/125V	AEK-510 T1.6A/250V
FU5	AEK-123 2.5A/125V	AEK-512 T2.5A/250V

SCH-2

POWER ASSY,
BIAS ASSY,
REG ASSY

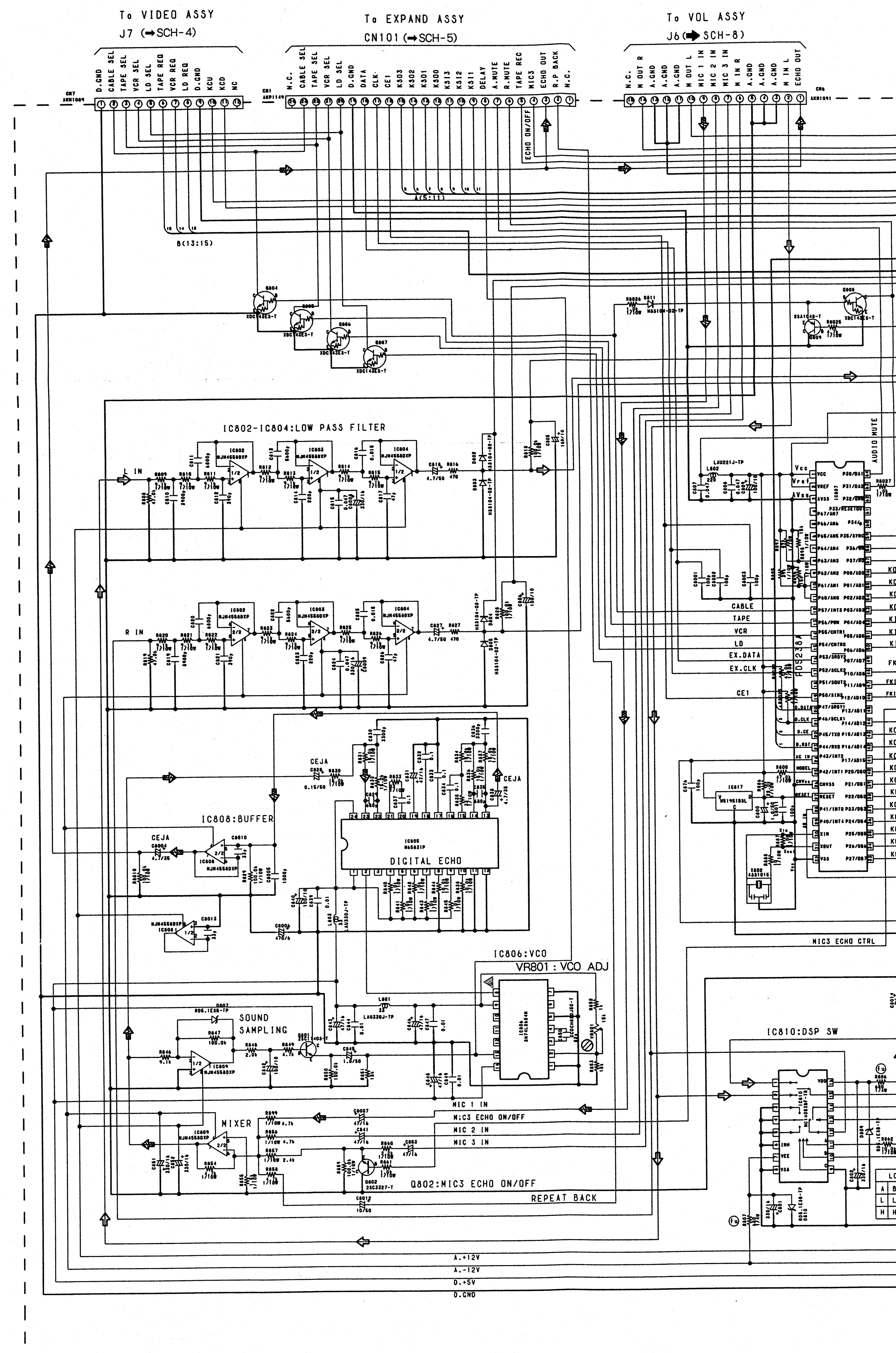
SCH-2


OUT
TP4
P104
PROTECTION
HARD MUTE
FROM EXPANDER
P118
D140
RD10ES8-TP
Q115
2SC1845-T
R167 2.4k
R169 2.4k
R163 NP 0.22/50
R171 15.0k
D115
H3S104-02-TP
D117
D119
R173 15.0k
RY101
ASR1026
R175 15.0k 1/4W
R177 220
D121
R179 2.7k
R180 4.7k
R181 82.0k
2SA1115-T
Q120
Q118
Q119
2SC17403
2SC17403-T
C152 470/6
R178 15.0k
R183 68
C153 100/25
D122
RD12E3B2-TP
R184 4.7k
R191 10.0k
Q121
2SC1845-T
R185 18.0k
R186 1.8k
2SB560-T
Q122
D123
D130
RY101
ASR1026
12
-12
DC DETECT
R117 1/4W
C159 0.1
C161 0.1
OVER LOAD
DETECTOR
CN20
KPC4
L
G
G
R
To SP ASSY
J20(➡SCH-8)
D124 D125
H3S104-02-TP
R188
C155 3.3/100
+44.5
(+49.5)
AC DETECT
R164 1/4W
C154
ACH1108
12000/63
C157
D126
S5VB20F
-44.5
(-49.5)
C171 0.047
P113
P114
P115
5
6
7
To
TRANSFORMER
T1
C195 0.01
C196 0.01
ANK-142
G101
P116
P117
Q116
2SC1845
R168 2.4k
R170 2.4k
C164 NP 0.22/50
D116
H3S104-02-TP
R172 15.0k
D118
R174 15.0k
D120
RY101
ASR1026
R176 15.0k 1/4W
R118 1/4W
C160 0.1
C162 0.1
P105 15
P106 16
P107 17
P108 18
P109 19
P110 20
P111 21
P112 22
AKT1012
12
VG
GND
-7
7
To VIDEO ASSY
CN23 (➡SCH-4)
J23
AEL1108-A-T
D213
C238 10/50
R190 560
REG ASSY(AWZ5743)
C226 100/25
C228 100/25
C227 100/25
C229 100/25
IC202
NJM79M05FA
VIN VOUT
C211 10/50
C222 0.01
C210 0.01
C213
5
DC
-7
7
GND
-12
12
CN24
KPE7
To SELECT ASSY
J24(➡SCH-6)
5
NC
DC
-12
12
GND
NC
CN17
KPE7
To VOL ASSY
J17(➡SCH-8)
C230 47/25
12
-12
GND
5
5
DC
ACK
N.C
L203
ATX0008-A-T
J5
ADX1585
To DSP ASSY
CN5(➡SCH-3)
C215 220/10
C219 0.01
C220 0.01
⇨: Audio signal

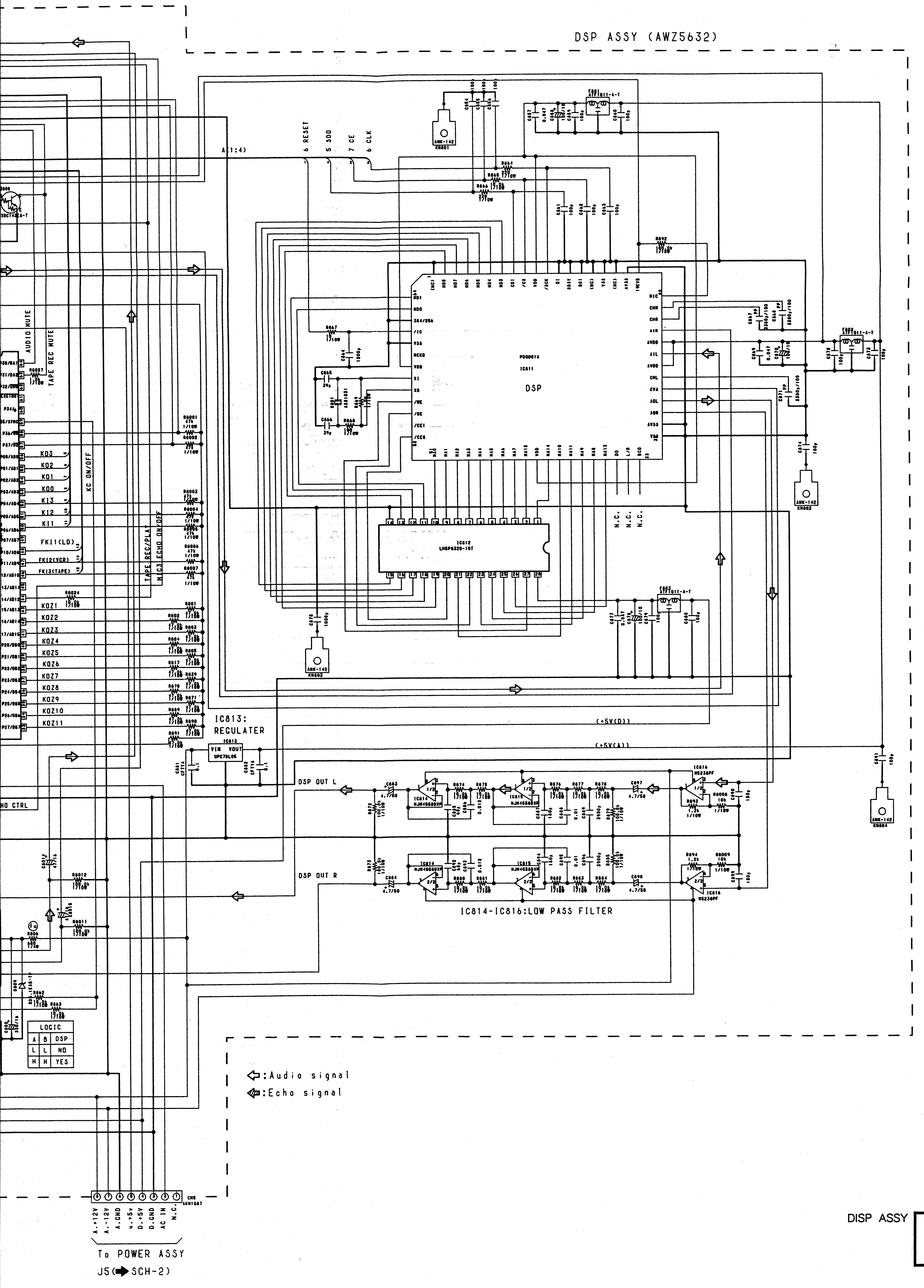
POWER ASSY,
BIAS ASSY,
REG ASSY

SCH-2

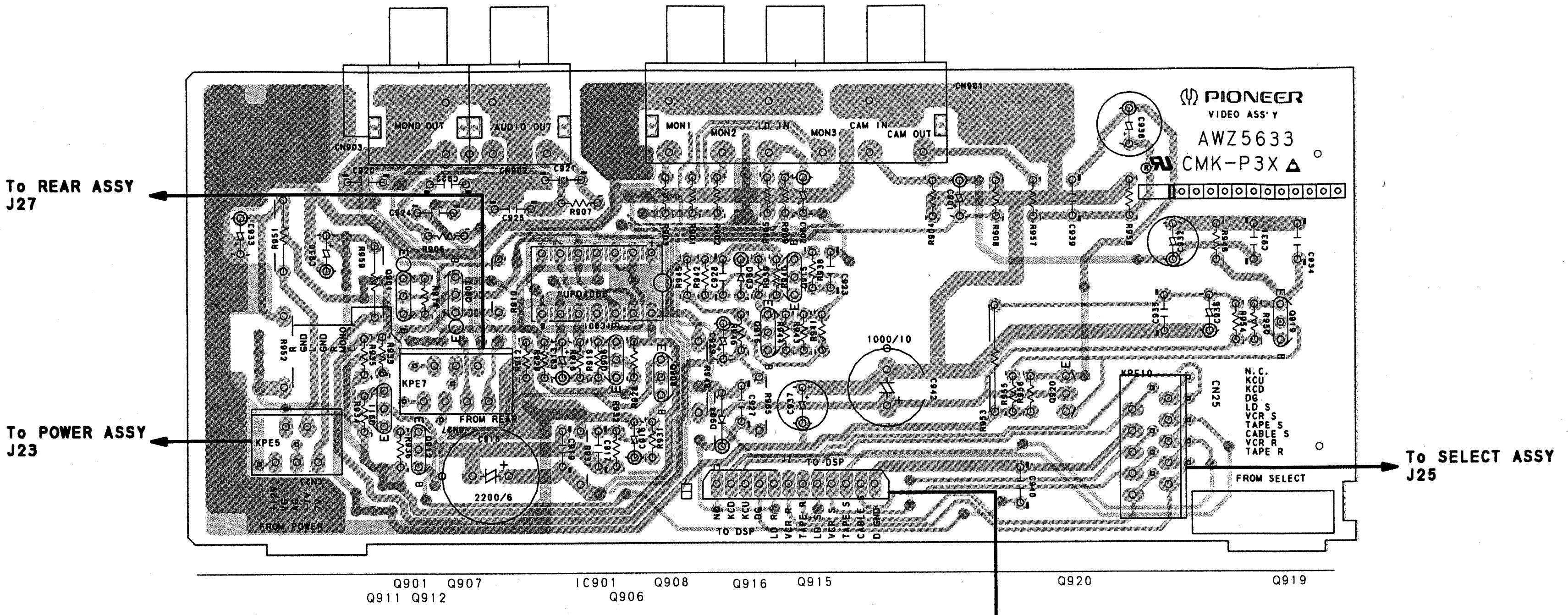
2.2.3 DISP ASSY


To VIDEO ASSY
J7 (➡SCH-4)
D.GND
CABLE SEL
TAPE SEL
VCR SEL
LD SEL
TAPE REQ
VCR REQ
LD REQ
D.GND
KCU
KCD
NC
CN7
AKM1069
To EXPAND ASSY
CN101 (➡SCH-5)
N.C.
CABLE SEL
TAPE SEL
VCR SEL
LD SEL
D.GND
DATA
CLK
CE1
KS03
KS02
KS01
KS00
KS13
KS12
KS11
DELAY
A.MUTE
R.MUTE
TAPE REC
MIC3
ECHO OUT
R.P BACK
N.C.
CN1
AKP1149
To VOL ASSY
J6 (➡SCH-8)
N.C.
M OUT R
A.GND
A.GND
M OUT L
MIC 1 IN
MIC 2 IN
MIC 3 IN
M IN R
A.GND
A.GND
M IN L
ECHO OUT
CN6
AKM1091
ECHO ON/OFF
A(5:11)
B(13:15)
Q804
Q805
Q806
Q807
XDC143ES-T
Q808
Q809
2SA1048-T
R8026
D811
HSS104-02-TP
R8025
IC802-IC804:LOW PASS FILTER
L IN
R IN
IC802
IC803
IC804
NJM4558DXP
AUDIO MUTE
LAU221J-TP
L802
Vcc
Vref
AVss
CABLE
TAPE
VCR
LD
EX.DATA
EX.CLK
CE1
AD5238A
IC817
M51951B3L
X802
ASS1016
MIC3 ECHO CTRL
CEJA
IC808:BUFFER
IC805
M65831P
DIGITAL ECHO
IC806:VCO
VR801 : VCO ADJ
SOUND
SAMPLING
Q801
IC809
L801
LAU330J-TP
D807
RD5.1ESB-TP
MIXER
MIC 1 IN
MIC3 ECHO ON/OFF
MIC 2 IN
MIC 3 IN
Q802
2SC3327-T
Q802:MIC3 ECHO ON/OFF
REPEAT BACK
IC810:DSP SW
IC810
MC14053BF-TR
VDD
INH
VEE
VSS
D810
RD5.1ESB-TP
A.+12V
A.-12V
D.+5V
D.GND

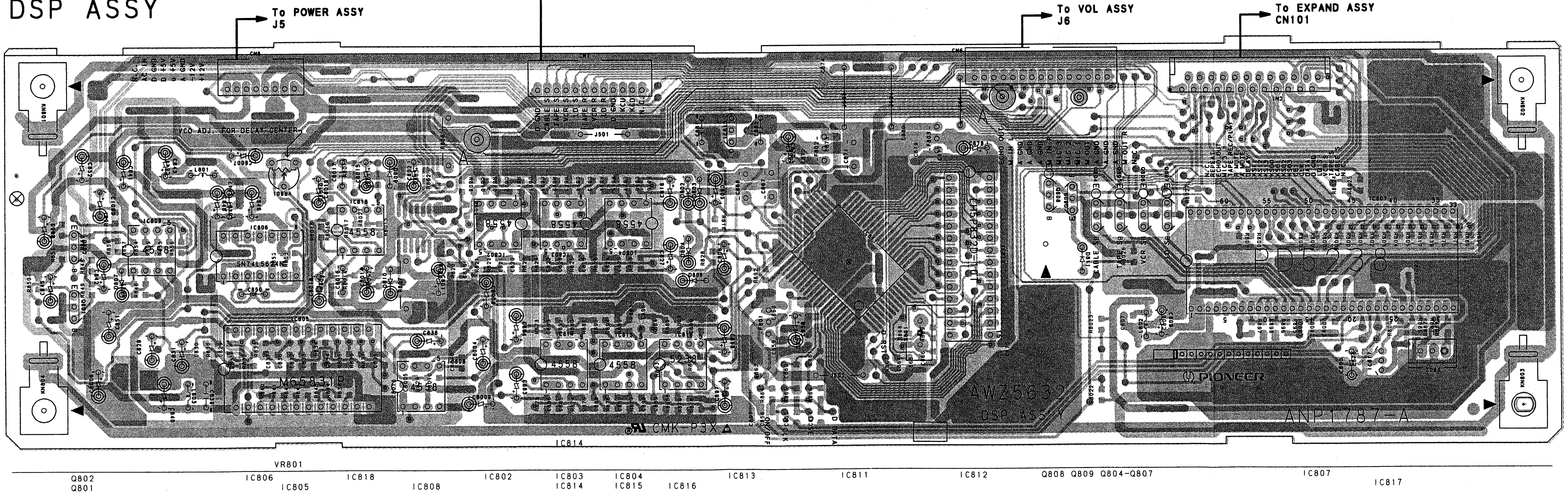
SCH-3 DISP ASSY


DSP ASSY (AWZ5632)
IC811 PD0001A DSP
IC812 LH5P8320-10T
IC813: REGULATER
IC813 UPC78L05
VIN VOUT
IC814-IC816:LOW PASS FILTER
IC814 NJM4558DXP
IC815 NJM4558DXP
IC816 NS236PF
F801 STF1011-A-T
F802 STF1011-A-T
F803 STF1011-A-T
AMK-142 KN801
AMK-142 KN802
AMK-142 KN803
AMK-142 KN804
6 RESET
5 SDO
7 CE
6 CLK
A[1:4]
(+5V(D))
(+5V(A))
DSP OUT L
DSP OUT R
AUDIO MUTE
TAPE REC MUTE
KC ON/OFF
TAPE REC/PLAY
MIC3 ECHO ON/OFF
KO3
KO2
KO1
KO0
KI3
KI2
KI1
FKI1(LD)
FKI2(VCR)
FKI3(TAPE)
KOZ1
KOZ2
KOZ3
KOZ4
KOZ5
KOZ6
KOZ7
KOZ8
KOZ9
KOZ10
KOZ11
ECHO CTRL
N.C.
N.C.
N.C.
LOGIC
A B DSP
L L NO
H H YES
:Audio signal
:Echo signal
CN5 LKN1067
A.+12V
A.-12V
A.GND
u.+5v
D.+5V
D.GND
AC IN
N.C.
To POWER ASSY
J5(➡SCH-2)

VIDEO ASSY


To REAR ASSY
J27
To POWER ASSY
J23
To SELECT ASSY
J25
PIONEER
VIDEO ASS'Y
AWZ5633
CMK-P3X
MONO OUT
AUDIO OUT
MON1
MON2
LD IN
MON3
CAM IN
CAM OUT
FROM REAR
FROM POWER
TO DSP
FROM SELECT
KPE5
KPE7
KPE10
2200/6
1000/10
Q901 Q907
Q911 Q912
IC901
Q906
Q908
Q916
Q915
Q920
Q919

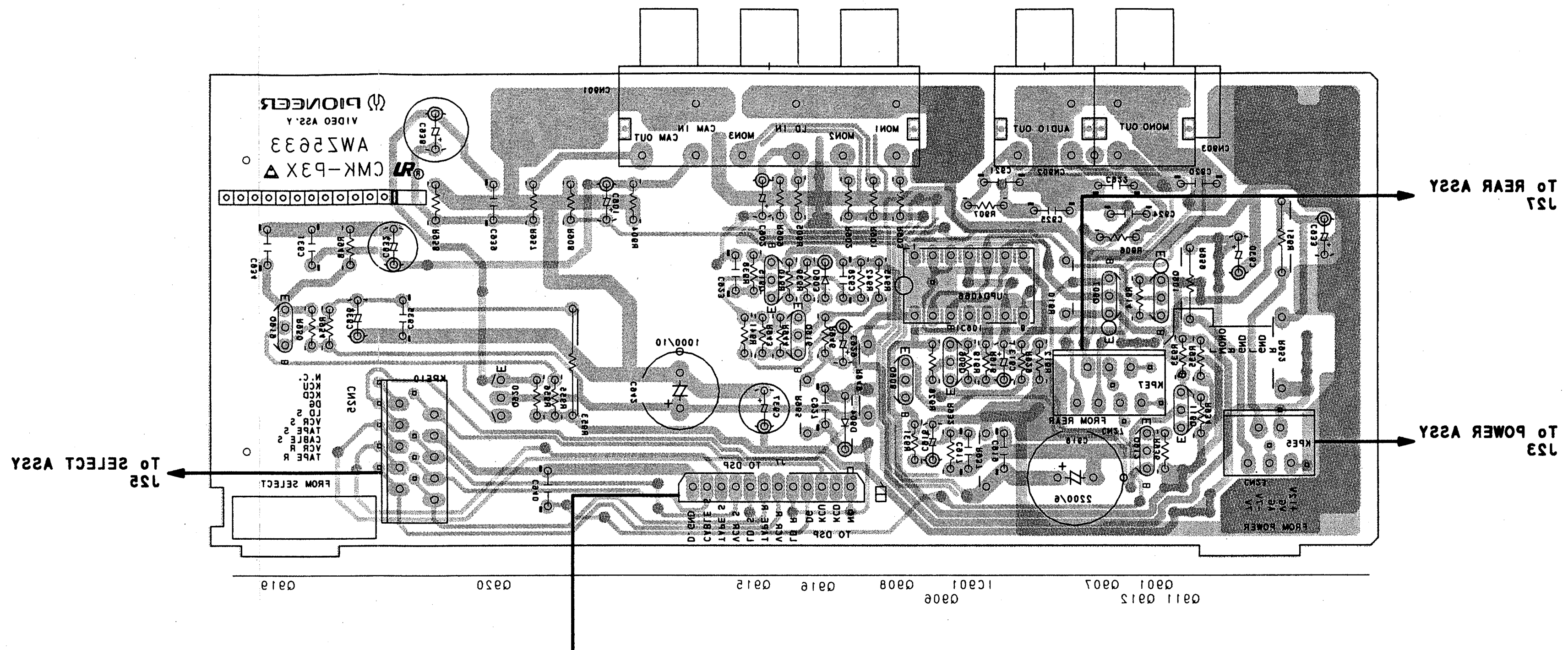
DSP ASSY


To POWER ASSY
J5
To VOL ASSY
J6
To EXPAND ASSY
CN101
VCO ADJ. FOR DELAY CENTER
4558
SN74LS624
M65831P
PD5238
PIONEER
AWZ5632
DSP ASSY
ANP1787-A
CMK-P3X
IC814
Q802
Q801
VR801
IC806
IC805
IC818
IC808
IC802
IC803
IC814
IC804
IC815
IC816
IC813
IC811
IC812
Q808 Q809 Q804-Q807
IC807
IC817

- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.

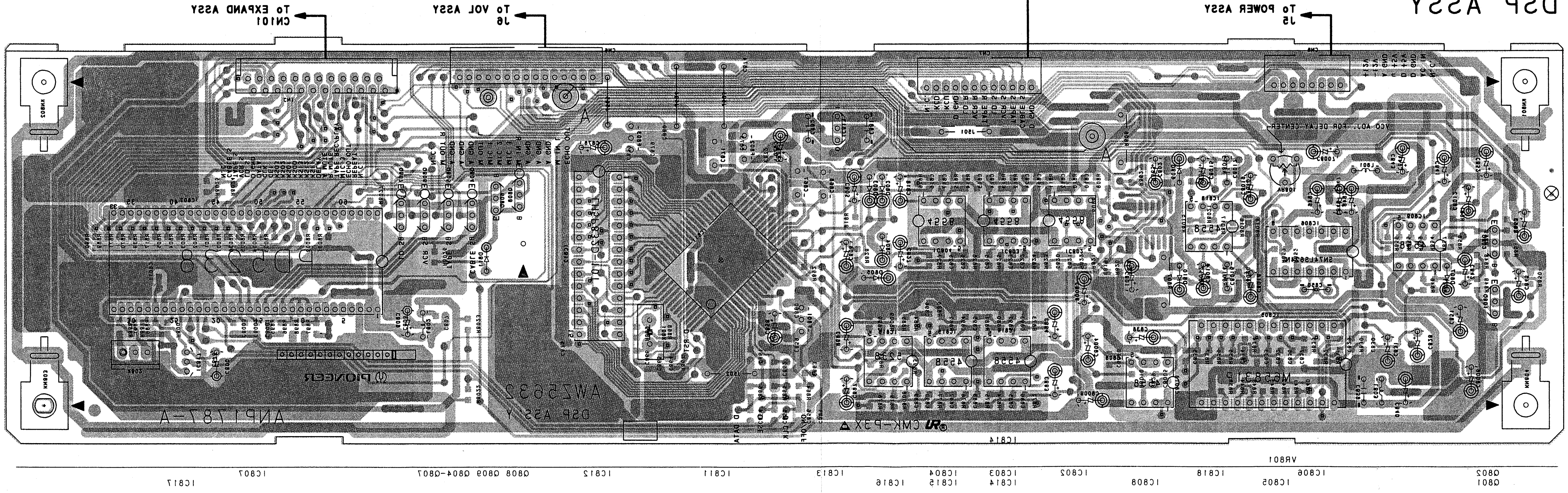
PCB-2

VIDEO ASSY


PIONEER
VIDEO ASS'Y
AWZ5633
CMK-P3X
To REAR ASSY
J27
To POWER ASSY
J23
To SELECT ASSY
J25
Q919
Q920
Q915
Q916
Q908
IC901
Q906
Q901
Q907
Q911
Q912

- This diagram is viewed from the gray colored foil side.
- This PCB is double sided.

DSP ASSY


To EXPAND ASSY
CN101
To VOL ASSY
J6
To POWER ASSY
J5
PIONEER
AWZ5632
DSP ASS'Y
ANP1787-A
CMK-P3X
IC814
VR801
IC807
IC817
Q808 Q809 Q804-Q807
IC812
IC811
IC813
IC816
IC804
IC815
IC803
IC814
IC802
IC808
IC818
IC806
IC805
Q802
Q801

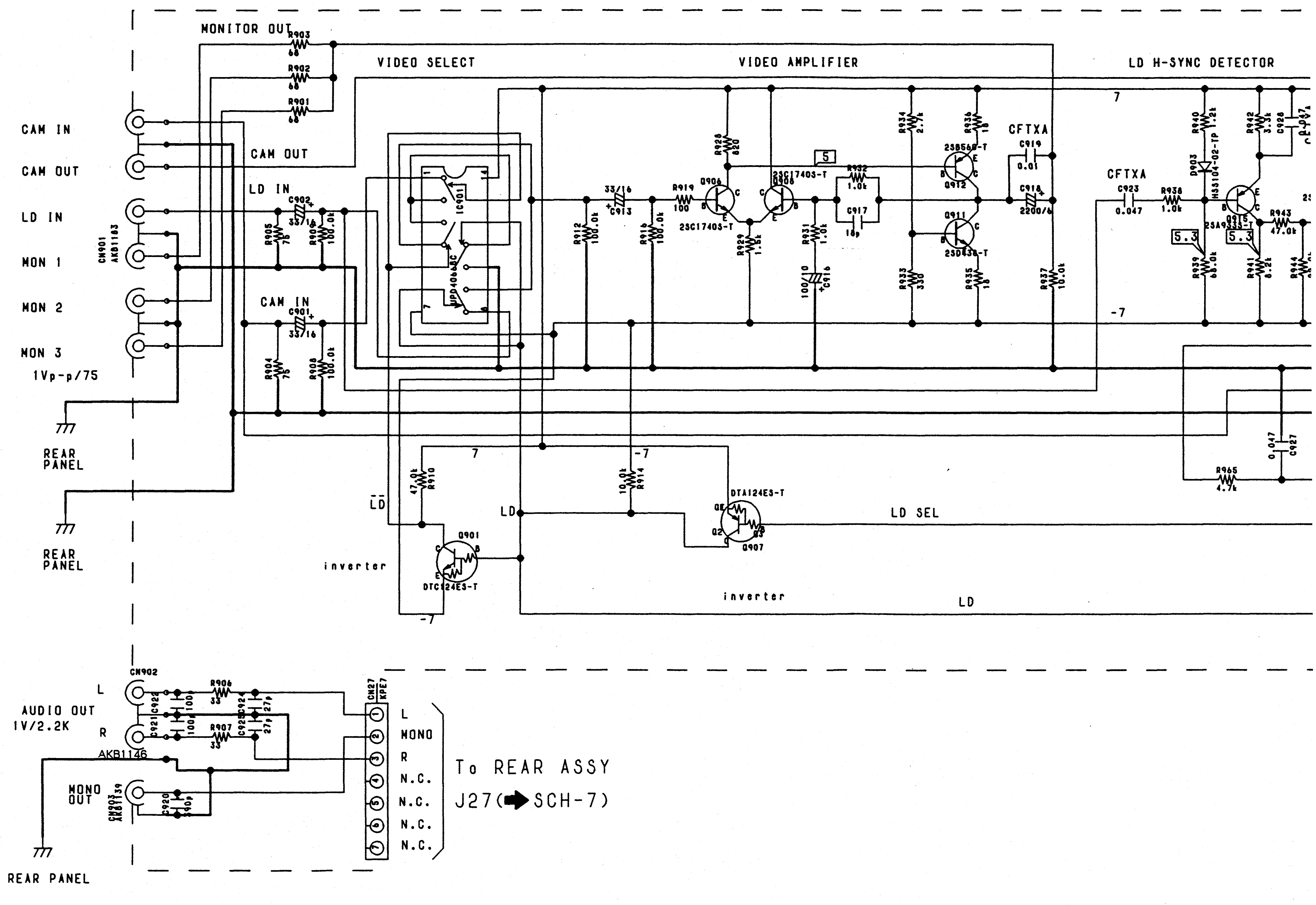
2.2.4 VIDEO ASSY

A

B

C

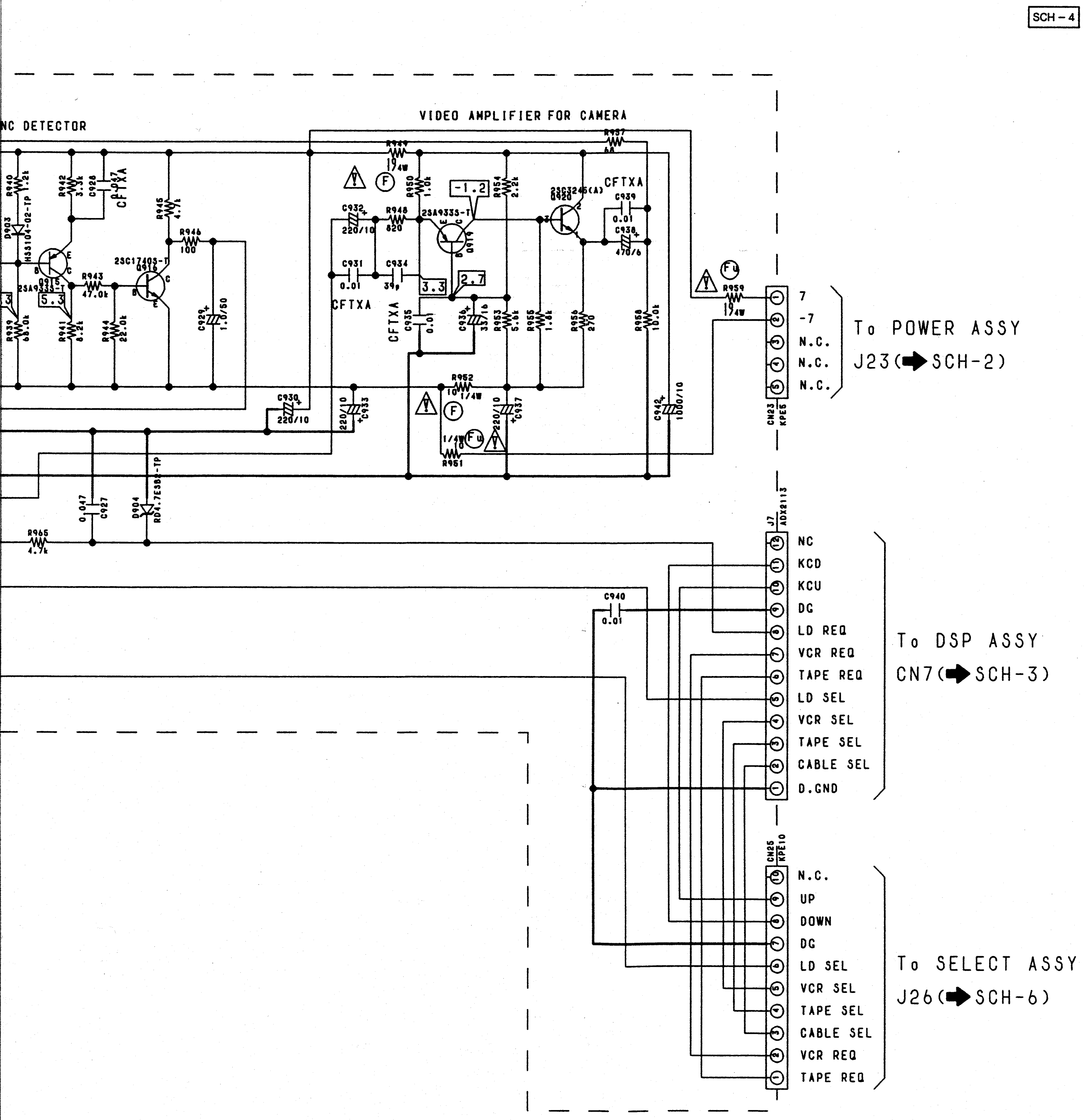
VIDEO ASSY (AWZ5633)


MONITOR OUT
R903 68
R902 68
R901 68
VIDEO SELECT
VIDEO AMPLIFIER
LD H-SYNC DETECTOR
CAM IN
CAM OUT
LD IN
MON 1
MON 2
MON 3
1Vp-p/75
CN901 AKB1163
CAM OUT
LD IN
C902 33/16
R905 75
R909 100.0k
CAM IN
C901 33/16
R904 75
R908 100.0k
IC901
UPD4066BC
1
14
7
8
33/16
C913
R912 100.0k
R916 100.0k
R919 100
Q906
2SC1740S-T
Q908
2SC1740S-T
R928 820
R929 1.5k
R931 1.0k
100/10 C916
5
R932 1.0k
C917 18p
R934 2.7k
R933 330
R936 18
2SB561D-T
Q912
Q911
2SD438-T
R935 18
CFTXA
C919 0.01
C918 2200/6
R937 10.0k
7
-7
CFTXA
C923 0.047
R938 1.0k
R940 1.2k
D903 HSS104-02-TP
R942 3.3k
C928
Q915
2SA933S-T
R943 47.0k
5.3
5.3
R939 68.0k
R941 8.2k
R944
0.047 C927
R965 4.7k
REAR PANEL
REAR PANEL
7
-7
R910 47.0k
R914 10.0k
L̄D̄
LD
DTA124ES-T
Q907
LD SEL
Q901
inverter
DTC124ES-T
-7
inverter
LD
CN902
L
R
AUDIO OUT
1V/2.2K
C922 100p
C921 100p
R906 33
R907 33
C924 27p
C925 27p
AKB1146
MONO OUT
CN903 AKB1139
C920 390p
CN27 KPE7
1 L
2 MONO
3 R
4 N.C.
5 N.C.
6 N.C.
7 N.C.
REAR PANEL
To REAR ASSY
J27(➡SCH-7)

D

E

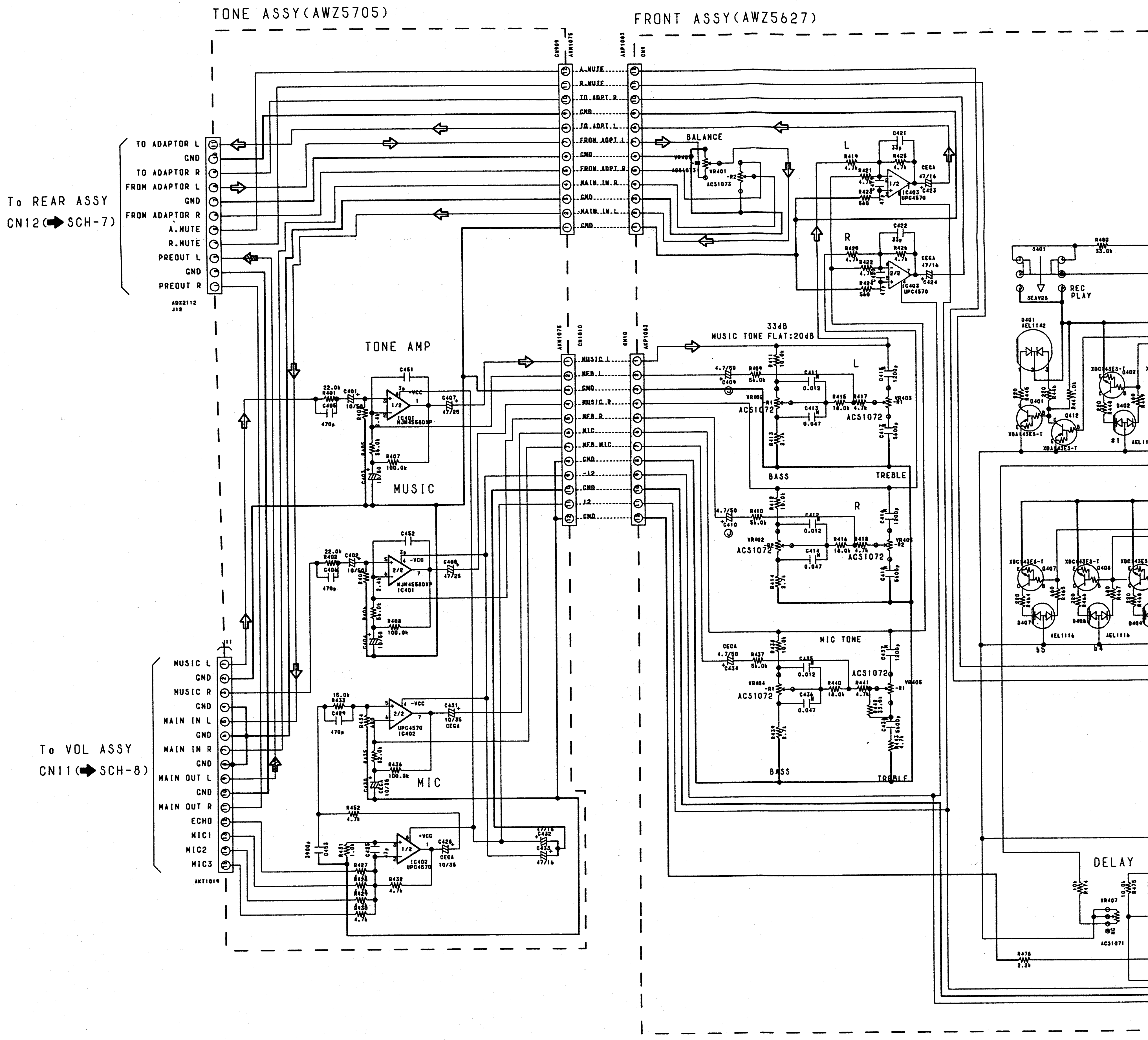
F


SCH - 4
NC DETECTOR
VIDEO AMPLIFIER FOR CAMERA
R940 1.2k
D903 HSS104-02-TP
R942 3.3k
C928 0.047 CFTXA
R945 4.7k
R946 100
Q915 2SA933S-T
5.3
R939 68.0k
R941 8.2k
R943 47.0k
R944 22.0k
Q916 2SC1740S-T
C929 1.0/50
C930 220/10
C933 220/10
C927 0.047
D904 RD4.7ESB2-TP
R965 4.7k
R949 10 1/4W
F
R950 1.0k
C932 220/10
R948 820
C931 0.01
C934 39p
CFTXA
3.3
C935 0.01
CFTXA
Q919 2SA933S-T
-1.2
2.7
R954 2.2k
C936 33/16
R953 5.6k
R955 1.8k
Q920 2SC3245(A)
CFTXA
C939 0.01
C938 470/6
R956 270
R957 68
R958 10.0k
R952 10 1/4W
F
C937 220/10
R951 10 1/4W
Fu
C942 1000/10
R959 10 1/4W
Fu
CN23 KPE5
1 7
2 -7
3 N.C.
4 N.C.
5 N.C.
To POWER ASSY
J23(➡SCH-2)
J7 ADX2113
12 NC
11 KCD
10 KCU
9 DG
8 LD REQ
7 VCR REQ
6 TAPE REQ
5 LD SEL
4 VCR SEL
3 TAPE SEL
2 CABLE SEL
1 D.GND
C940 0.01
To DSP ASSY
CN7(➡SCH-3)
CN25 KPE10
10 N.C.
9 UP
8 DOWN
7 DG
6 LD SEL
5 VCR SEL
4 TAPE SEL
3 CABLE SEL
2 VCR REQ
1 TAPE REQ
To SELECT ASSY
J26(➡SCH-6)

Note:
1.RESISTORS:
Indicated in Ohm,1/8W,5%torerance unless otherwise noted k,kOhm,M,MOhm
2.CAPACITORS:
Indicated in Capacity(uF)/Voltage(V) unless otherwise noted p,pF

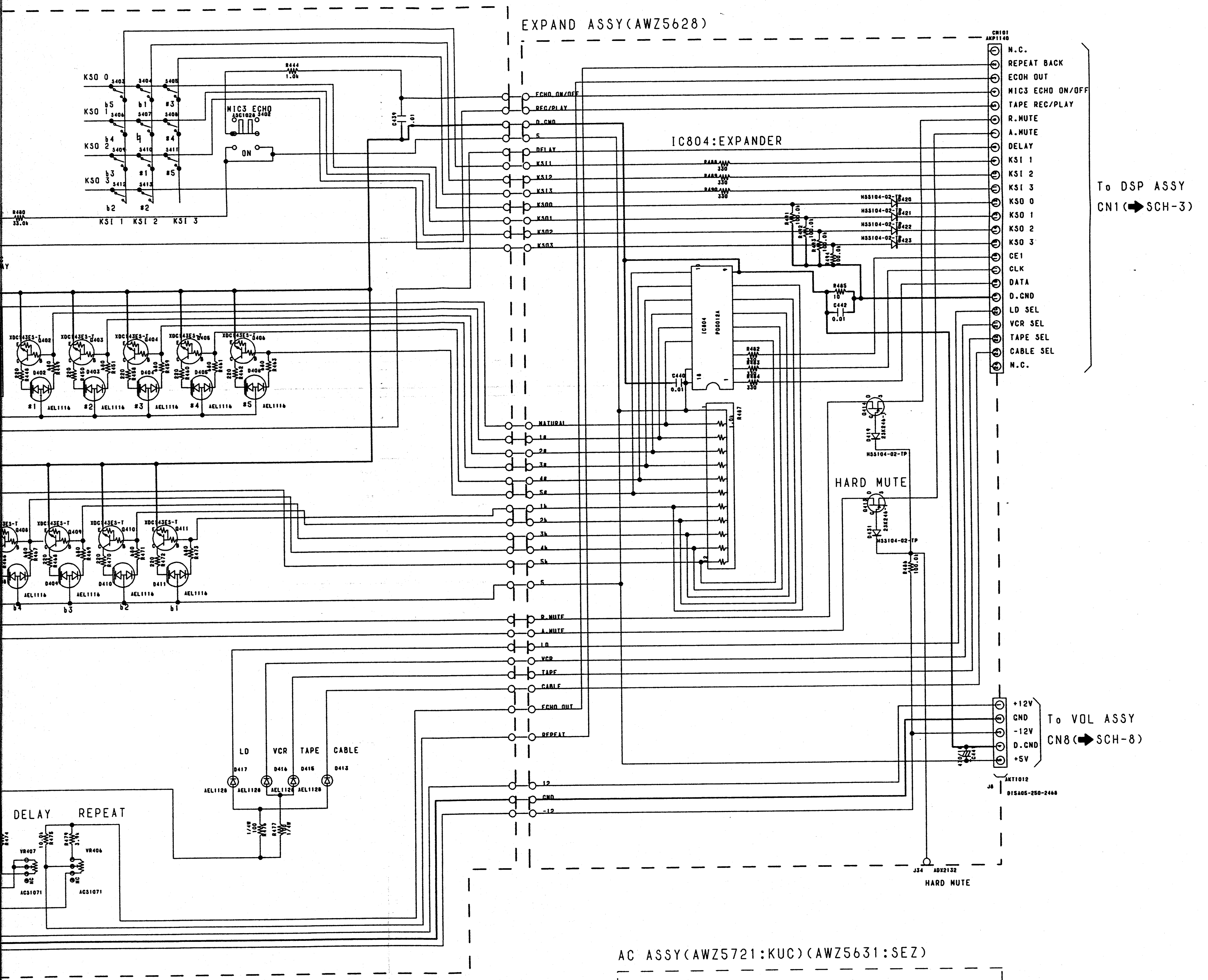
The⚠mark found on some component parts indicates the importance of the safty factor of the part. Therefore,when replacing be sure to use of indentical designation.

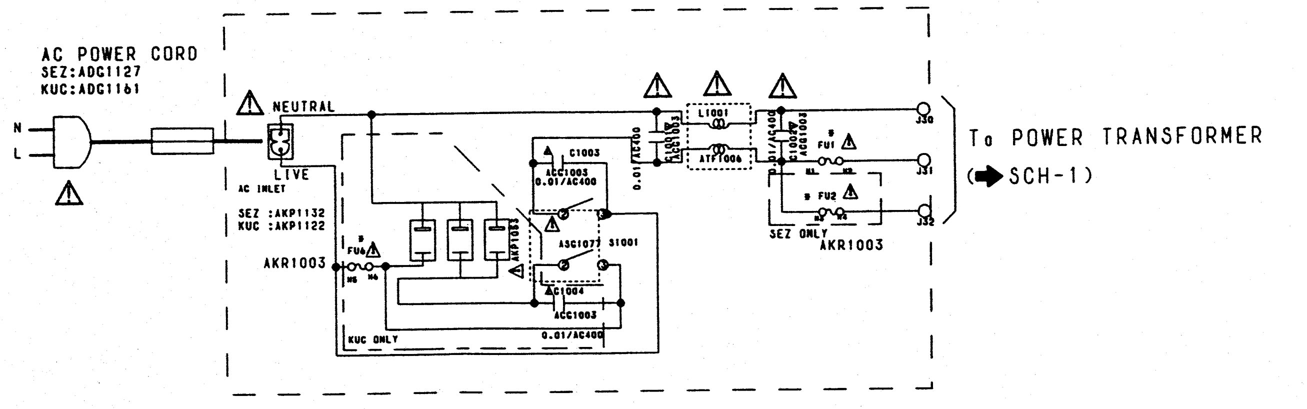
2.2.5 TONE, FRONT, EXPAND AND AC ASSEMBLIES


TONE ASSY(AWZ5705)
FRONT ASSY(AWZ5627)
To REAR ASSY CN12(➡SCH-7)
TO ADAPTOR L
GND
TO ADAPTOR R
FROM ADAPTOR L
GND
FROM ADAPTOR R
A.MUTE
R.MUTE
PREOUT L
GND
PREOUT R
ADX2112 J12
A.MUTE
R.MUTE
TO ADPT.R
GND
TO ADPT.L
FROM ADPT.L
GND
FROM ADPT.R
MAIN IN R
GND
MAIN IN L
GND
BALANCE
VR401
AC31073
L
R
C421
C422
IC403 UPC4570
CEGA 47/16
REC
PLAY
S401
D401 AEL1142
TONE AMP
C451
IC401 NJM4558DXP
MUSIC
MUSIC L
NFB L
GND
MUSIC R
NFB R
MIC
NFB MIC
GND
-12
GND
12
GND
33dB
MUSIC TONE FLAT:20dB
ACS1072
BASS
TREBLE
MIC TONE
C452
IC402 UPC4570
MIC
To VOL ASSY CN11(➡SCH-8)
MUSIC L
GND
MUSIC R
GND
MAIN IN L
GND
MAIN IN R
GND
MAIN OUT L
GND
MAIN OUT R
ECHO
MIC1
MIC2
MIC3
AKT1019
J11
DELAY
VR407
AC31071
R478 2.2k
XDC143ES-T
XDA143ES-T
AEL1116
1
2
3
4
A
B
C
D
E
F

SCH-5

TONE ASSY,
FRONT ASSY,
EXPAND ASSY,
AC ASSY




AC ASSY(AWZ5721:KUC)(AWZ5631:SEZ)
AC POWER CORD
SEZ:ADG1127
KUC:ADG1161
NEUTRAL
LIVE
AKR1003
To POWER TRANSFORMER
(➡SCH-1)

⇨: Audio signal

▨: Echo signal

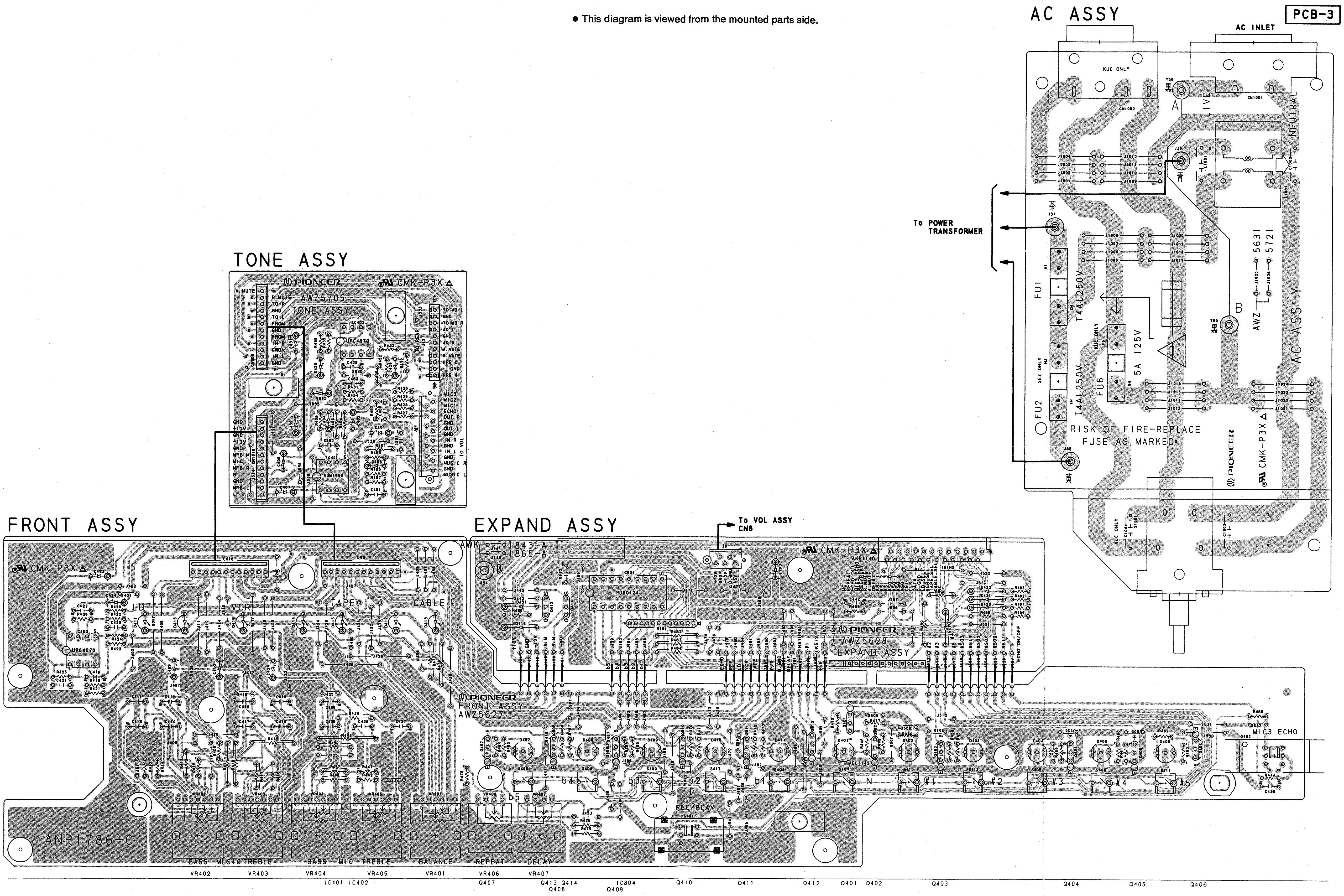
*	KUC	SEZ
FU1	AEK1002 8A/125V	AEK-514 T4A/250V
FU2		AEK-514 T4A/250V
FU6	AEK-308 5A/125V	

Note:
1.RESISTORS:
Indicated in Ohm,1/8W,5%torerance unless otherwise noted k,kOhm,M,MOhm
2.CAPACITORS:
Indicated in Capacity(uF)/Voltage(V) unless otherwise noted p,pF

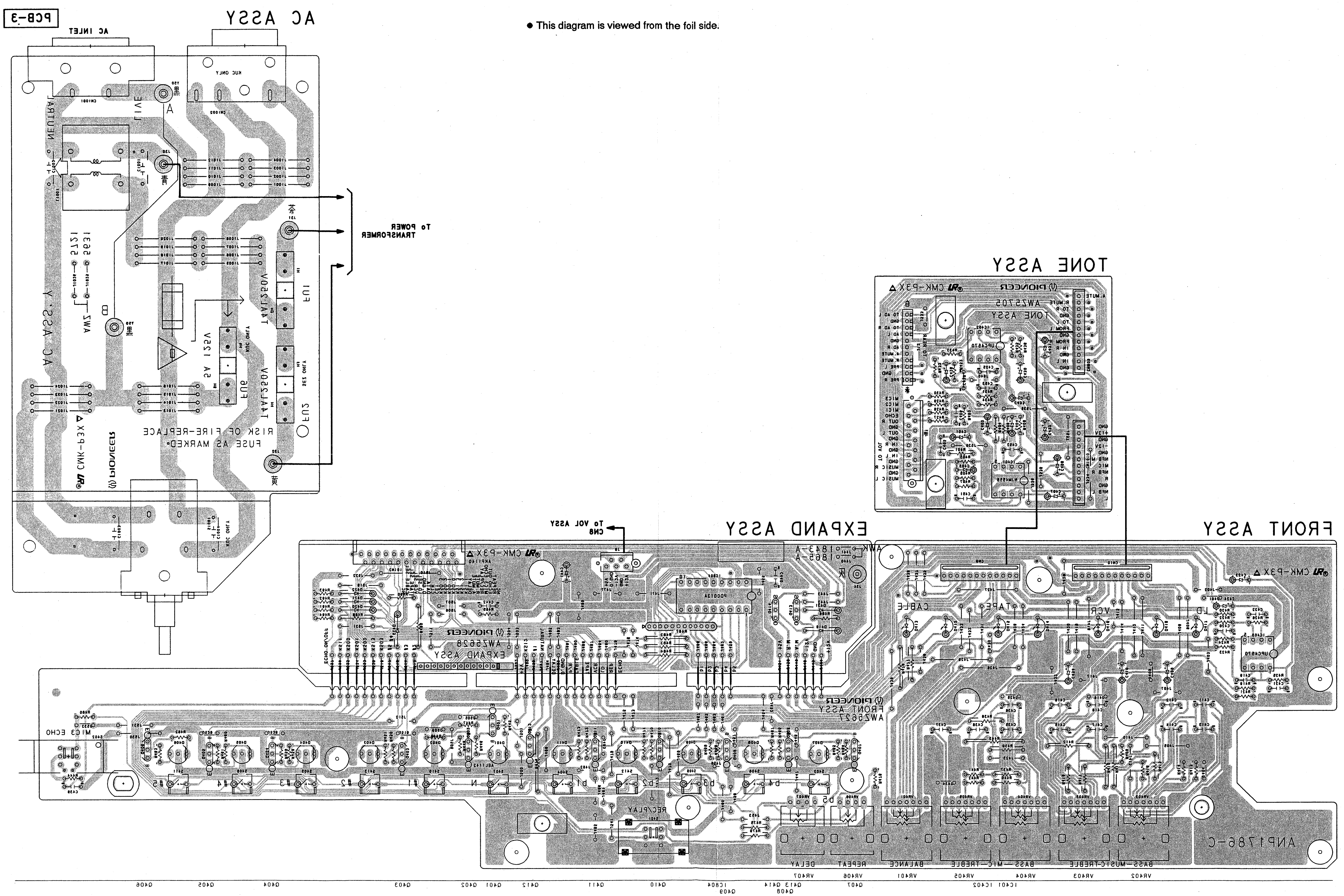
TONE ASSY,
FRONT ASSY,
EXPAND ASSY,
AC ASSY

SCH-5

• This diagram is viewed from the mounted parts side.

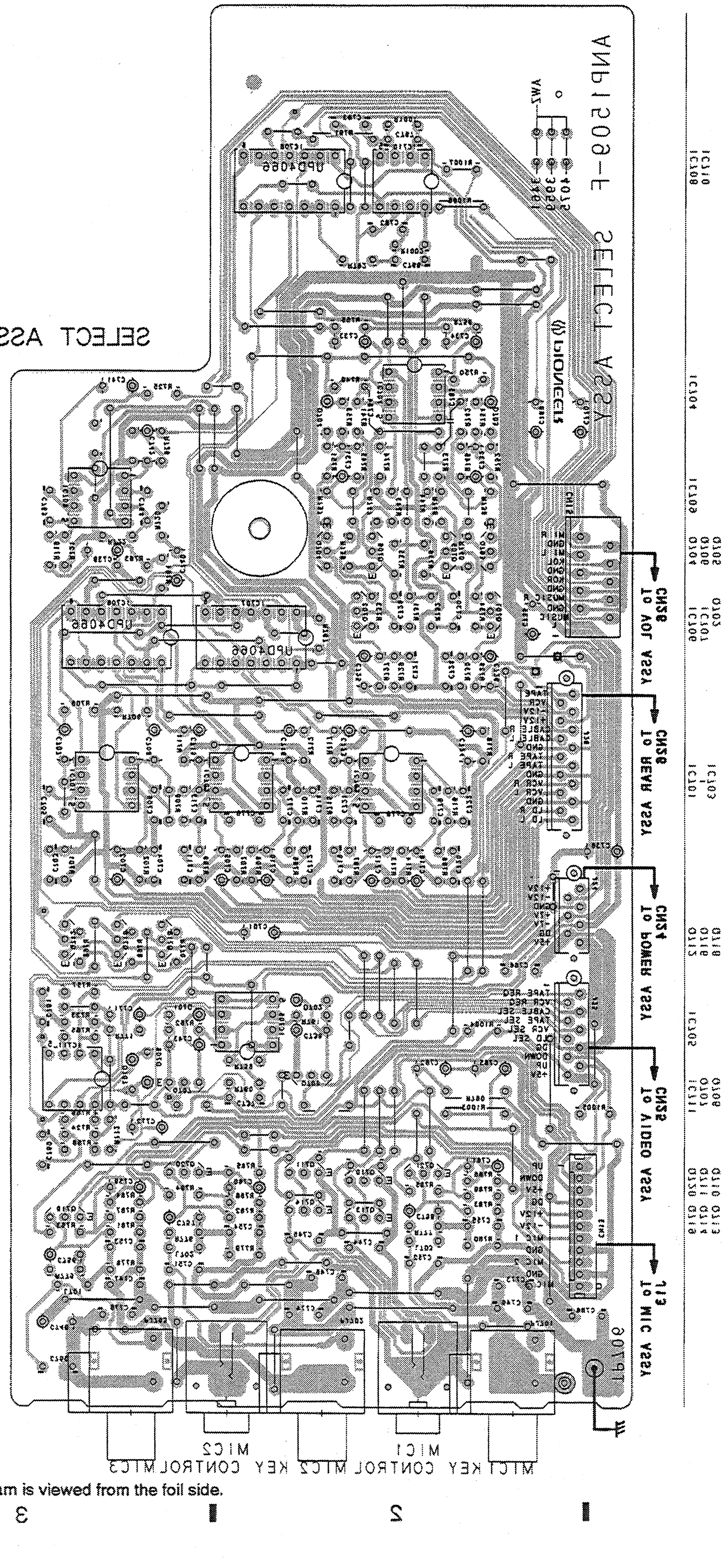

AC ASSY
PCB-3
AC INLET
KUC ONLY
LIVE
NEUTRAL
To POWER TRANSFORMER
FU1
T4AL250V
FU2
T4AL250V
SEZ ONLY
KUC ONLY
FU6
5A 125V
AWZ
5631
5721
AC ASS'Y
RISK OF FIRE-REPLACE FUSE AS MARKED.
PIONEER
CMK-P3X
TONE ASSY
PIONEER
AWZ5705
TONE ASSY
UPC4570
NJM4559
FRONT ASSY
CMK-P3X
LD
VCR
TAPE
CABLE
UPC4570
PIONEER
FRONT ASSY
AWZ5627
ANP1786-C
BASS-MUSIC-TREBLE
BASS-MIC-TREBLE
BALANCE
REPEAT
DELAY
EXPAND ASSY
AWK 1843-A
1865-A
To VOL ASSY CN8
PD0012A
PIONEER
AWZ5628
EXPAND ASSY
REC/PLAY
b1
b2
b3
b4
b5
N
#1
#2
#3
#4
#5
MIC3 ECHO
VR402
VR403
VR404
VR405
VR401
VR406
VR407
IC401 IC402
Q407
Q413 Q414
Q408
IC804
Q409
Q410
Q411
Q412
Q401 Q402
Q403
Q404
Q405
Q406
1
2
3
4
5
6
A
B
C
D

● This diagram is viewed from the foil side.


PCB-3
AC ASSY
AC INLET
KUC ONLY
LIVE
NEUTRAL
To POWER TRANSFORMER
T4A 250V
T4A 250V
FU1
FU2
FU3
RISK OF FIRE-REPLACE FUSE AS MARKED
AC ASSY
AWZ
CMK-P3X
PIONEER
TONE ASSY
AWZ5705
EXPAND ASSY
AWZ5628
To VOL ASSY CN8
FRONT ASSY
AWZ5627
CABLE
TAPE
VCR
MIC3 ECHO
DELAY
REPEAT
BALANCE
BASS—MIC-TREBLE
BASS—MUSIC-TREBLE
REC/PLAY
ANP1786-C
VR407
VR406
VR401
VR405
VR404
VR403
VR402

2.2.6 SELECT ASSY

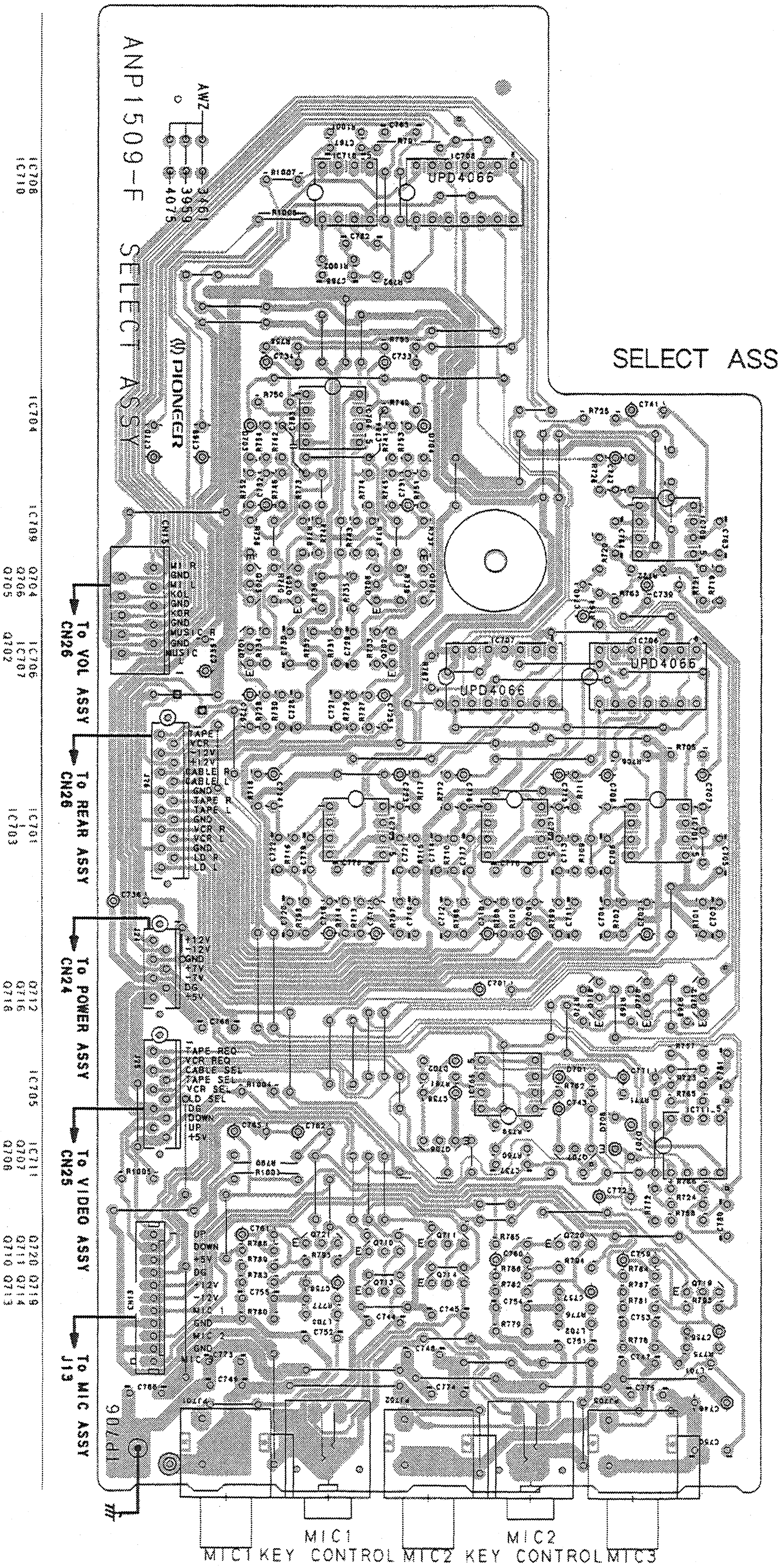
PCB - 4


SELECT ASSY
ANP1509-F
SELECT ASSY
PIONEER
UPD4066
CN28 To VOL ASSY
CN26 To REAR ASSY
CN24 To POWER ASSY
CN25 To VIDEO ASSY
J13 To MIC ASSY
MIC2
MIC1
MIC1 KEY CONTROL MIC2 KEY CONTROL MIC3

- This diagram is viewed from the foil side.

2.2.6 SELECT ASSY

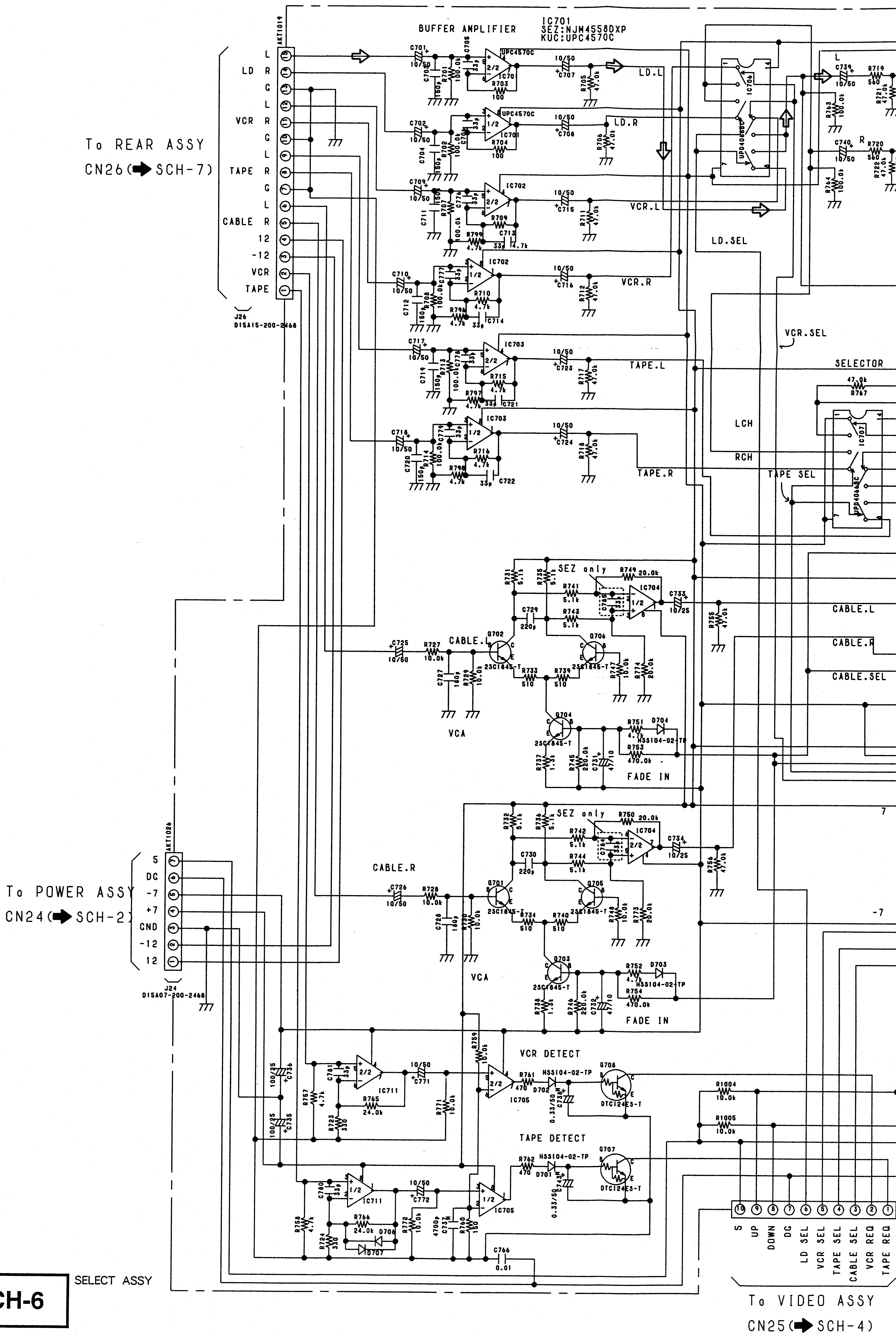
PCB - 4

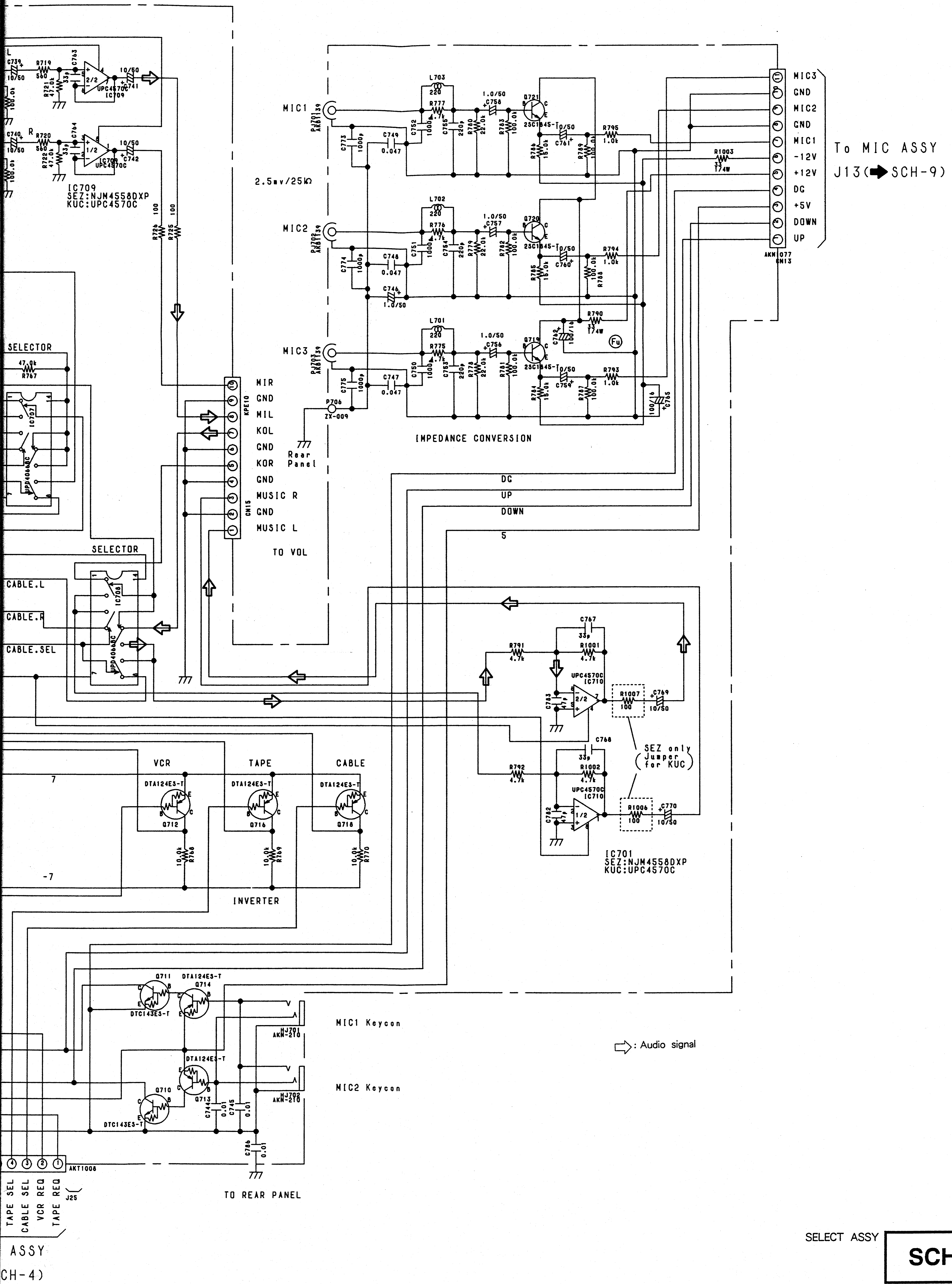

ANP1509-F SELECT ASSY
PIONEER
AWZ
3461
3959
4075
SELECT ASSY
UPD4066
UPD4066
UPD4066
IC706
IC710
IC704
IC709
M1 R
GND
M1 L
SOL
GND
KOR
GND
MUSIC R
GND
MUSIC L
To VOL ASSY CN26
TAPE
VCR
-12V
+12V
CABLE R
CABLE L
GND
TAPE R
TAPE L
GND
VCR R
VCR L
GND
LD R
LD L
To REAR ASSY CN28
+12V
-12V
GND
+7V
-7V
DG
+5V
To POWER ASSY CN24
TAPE REQ
VCR REQ
CABLE SEL
TAPE SEL
VCR SEL
LD SEL
DG
DOWN
UP
+5V
To VIDEO ASSY CN25
UP
DOWN
+5V
DG
+12V
-12V
MIC 1
GND
MIC 2
GND
MIC 3
To MIC ASSY J13
IP706
MIC1
MIC2
MIC1 KEY CONTROL
MIC2 KEY CONTROL
MIC3

A B C D

● This diagram is viewed from the mounted parts side.

SELECT ASSY (AWZ3461:KUC)(AWZ3959:SEZ)

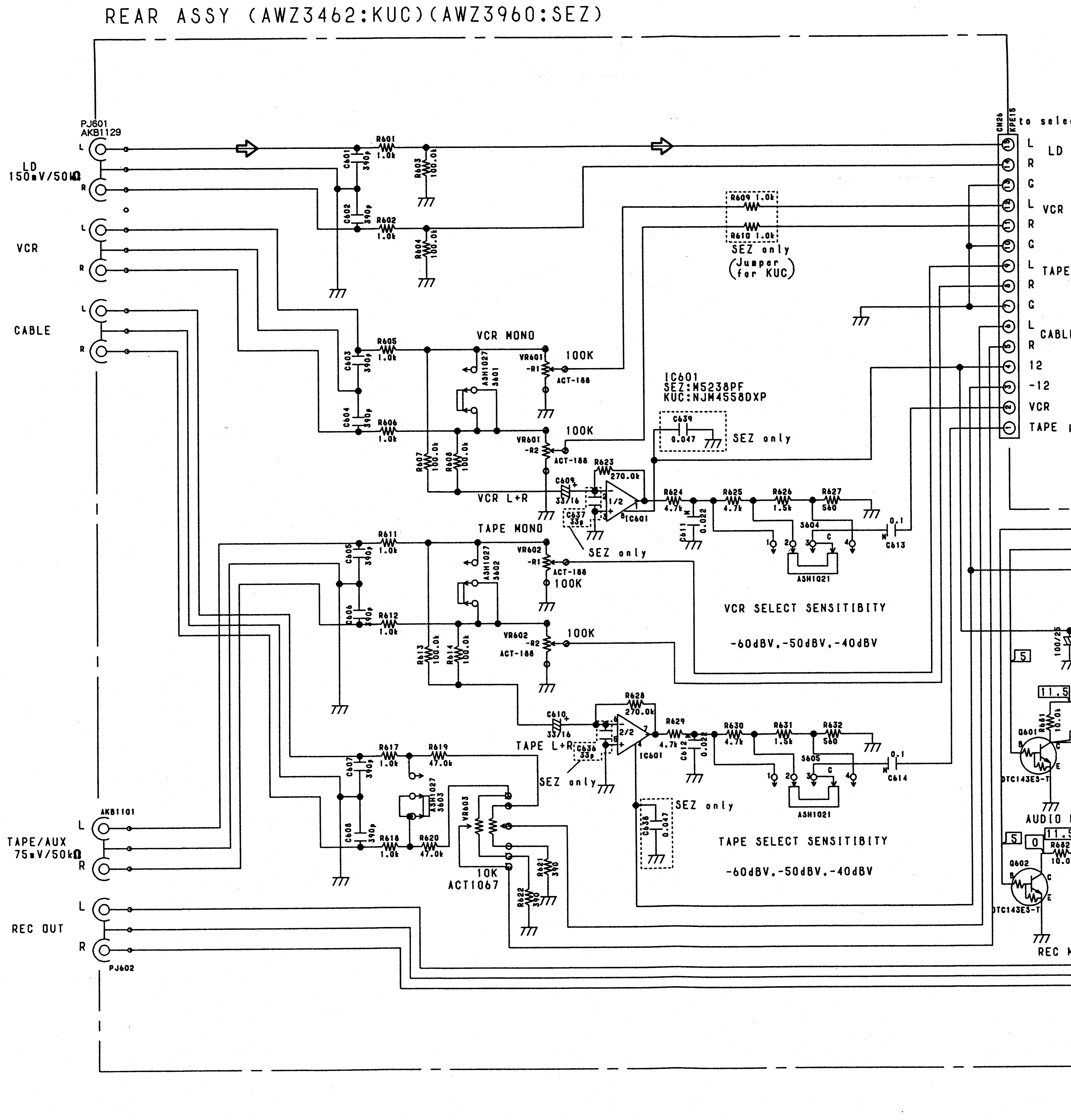

BUFFER AMPLIFIER
IC701
SEZ:NJM4558DXP
KUC:UPC4570C
To REAR ASSY
CN26(➡SCH-7)
AKT1019
LD L R G
VCR L R G
TAPE L R G
CABLE L R
12
-12
VCR
TAPE
J26
D15A15-200-2468
LD.L
LD.R
VCR.L
VCR.R
TAPE.L
TAPE.R
LD.SEL
VCR.SEL
SELECTOR
LCH
RCH
TAPE SEL
UPD4066BC
IC706
IC707
IC702
IC703
SEZ only
IC704
CABLE.L
CABLE.R
CABLE.SEL
Q702
Q706
Q704
2SC1845-T
VCA
FADE IN
D704
D703
HSS104-02-TP
Q701
Q705
Q703
To POWER ASSY
CN24(➡SCH-2)
AKT1026
5
DG
-7
+7
GND
-12
12
J24
D15A07-200-2468
VCR DETECT
TAPE DETECT
IC711
IC705
Q708
Q707
DTC124ES-T
D702
D701
D706
D707
R1004 10.0k
R1005 10.0k
5
UP
DOWN
DG
LD SEL
VCR SEL
TAPE SEL
CABLE SEL
VCR REQ
TAPE REQ
To VIDEO ASSY
CN25(➡SCH-4)
7
-7


MIC1
MIC2
MIC3
2.5mv/25kΩ
Rear Panel
IMPEDANCE CONVERSION
L703 220
L702 220
L701 220
R777 4.7k
R776 4.7k
R775 4.7k
C758 1.0/50
C757 1.0/50
C756 1.0/50
Q721
Q720
Q719
2SC1845-T
C749 0.047
C748 0.047
C747 0.047
C746 1.0/50
C773 1000p
C774 1000p
C775 1000p
R795 1.0k
R794 1.0k
R793 1.0k
R790 33 1/4W
R1003 33 1/4W
C762 100/16
C765 100/16
P706 ZX-009
MIC3
GND
MIC2
GND
MIC1
-12V
+12V
DC
+5V
DOWN
UP
AKM1077 CN13
To MIC ASSY
J13(➡SCH-9)
MIR
GND
MIL
KOL
GND
KOR
GND
MUSIC R
GND
MUSIC L
KPE10 CN15
TO VOL
DC
UP
DOWN
5
IC709
SEZ:NJM4558DXP
KUC:UPC4570C
R719 560
R720 560
R721 47.0k
R722 47.0k
C739 10/50
C740 10/50
C741 10/50
C742 10/50
R726 100
R725 100
SELECTOR
47.0k R767
IC707
UPD4066BC
SELECTOR
IC708
UPD4066BC
CABLE.L
CABLE.R
CABLE.SEL
C767 33p
R791 4.7k
R1001 4.7k
UPC4570C IC710
R1007 100
C769 10/50
C768 33p
R792 4.7k
R1002 4.7k
R1006 100
C770 10/50
C783 47p
C782 47p
SEZ only
Jumper for KUC
IC701
SEZ:NJM4558DXP
KUC:UPC4570C
VCR
TAPE
CABLE
DTA124ES-T
Q712
Q716
Q718
R768 10.0k
R769 10.0k
R770 10.0k
INVERTER
7
-7
Q711
DTA124ES-T
Q714
DTC143ES-T
Q713
Q710
DTC143ES-T
C744 0.01
C745 0.01
C786 0.01
JA701 AKN-210
JA702 AKN-210
MIC1 Keycon
MIC2 Keycon
TO REAR PANEL
AKT1008
TAPE SEL
CABLE SEL
VCR REQ
TAPE REQ
J25
ASSY
CH-4)
: Audio signal

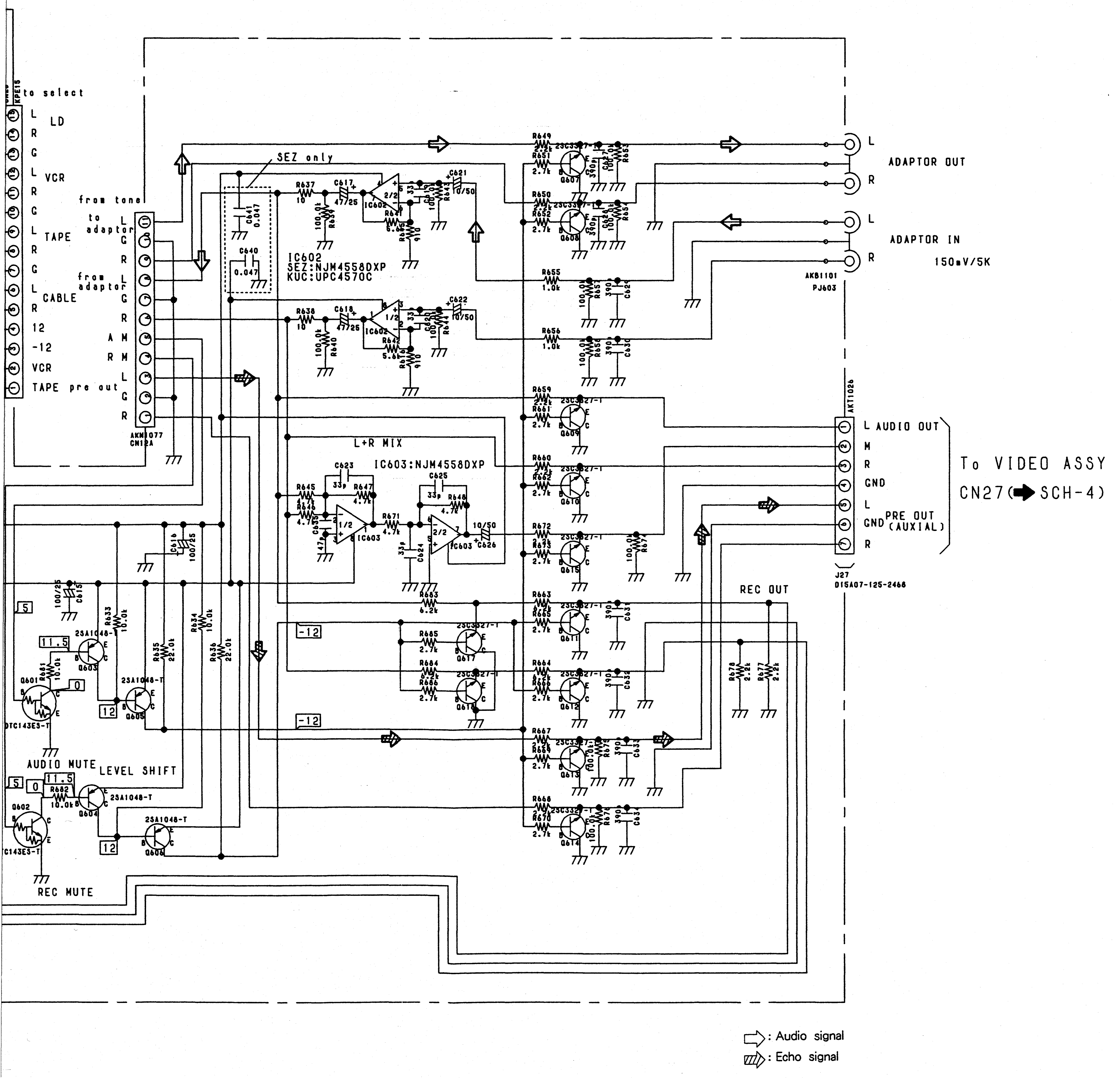
SELECT ASSY

SCH-6

2.2.7 REAR ASSY


REAR ASSY (AWZ3462:KUC)(AWZ3960:SEZ)
PJ601
AKB1129
LD
150mV/50kΩ
VCR
CABLE
TAPE/AUX
75mV/50kΩ
REC OUT
AKB1101
PJ602
L
R
R601 1.0k
R602 1.0k
C601 390p
C602 390p
R603 100.0k
R604 100.0k
R609 1.0k
R610 1.0k
SEZ only
(Jumper for KUC)
CN26
KPE15
to selec
LD
VCR
TAPE
CABLE
G
12
-12
VCR
TAPE
VCR MONO
R605 1.0k
R606 1.0k
C603 390p
C604 390p
ASH1027
S601
VR601 -R1
VR601 -R2
ACT-188
100K
R607 100.0k
R608 100.0k
IC601
SEZ:M5238PF
KUC:NJM4558DXP
C639 0.047
SEZ only
R623 270.0k
C609 33/16
C637 33p
1/2
IC601
VCR L+R
R624 4.7k
C611 0.022
R625 4.7k
R626 1.5k
R627 560
S604
ASH1021
C613 0.1
TAPE MONO
R611 1.0k
R612 1.0k
C605 390p
C606 390p
ASH1027
S602
VR602 -R1
VR602 -R2
ACT-188
100K
R613 100.0k
R614 100.0k
VCR SELECT SENSITIBITY
-60dBV,-50dBV,-40dBV
R628 270.0k
C610 33/16
C636 33p
2/2
TAPE L+R
R629 4.7k
C612 0.022
R630 4.7k
R631 1.5k
R632 560
S605
ASH1021
C614 0.1
C638 0.047
SEZ only
TAPE SELECT SENSITIBITY
-60dBV,-50dBV,-40dBV
R617 1.0k
R618 1.0k
R619 47.0k
R620 47.0k
C607 390p
C608 390p
ASH1027
S603
VR603
10K
ACT1067
R621 390
R622 390
Q601
Q602
DTC143E3-T
R681 10.0k
R682 10.0
100/25
5
11.5
0
AUDIO
REC

SCH-7

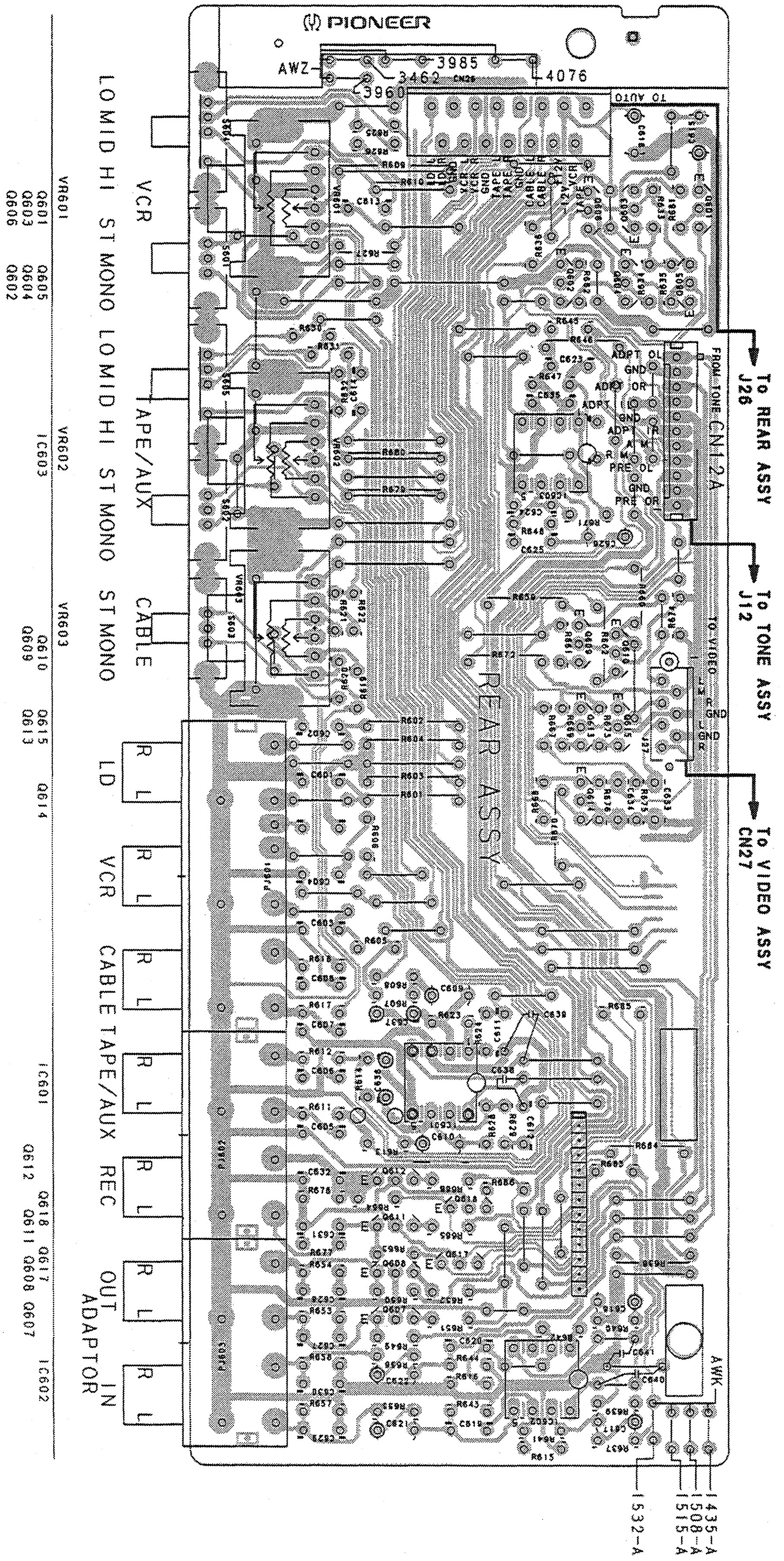

to select
LD
VCR
TAPE
CABLE
12
-12
VCR
TAPE pre out
from tone
to adaptor
from adaptor
AKM1077
CN12A
SEZ only
C641 0.047
C640 0.047
IC602
SEZ:NJM4558DXP
KUC:UPC4570C
R637 10
C617 47/25
R638 10
C618 47/25
C621 10/50
C622 10/50
R649
R651 2.7k
R650
R652 2.7k
Q607
Q608
2SC3327-1
R655 1.0k
R656 1.0k
ADAPTOR OUT
ADAPTOR IN
150mV/5K
AKB1101
PJ603
L+R MIX
IC603:NJM4558DXP
C623 33p
C625 33p
R645 4.7k
R646 4.7k
R647 4.7k
R648 4.7k
R671 4.7k
C626 10/50
C616 100/25
R683 6.2k
R685 2.7k
R684
R686 2.7k
Q617
Q618
Q609
Q610
Q615
Q611
Q612
Q613
Q614
R659
R661 2.7k
R660
R662 2.7k
R672
R673 2.7k
R663
R665 2.7k
R664
R666 2.7k
R667
R669 2.7k
R668
R670 2.7k
R676 2.2k
R677 2.2k
REC OUT
AKT1026
L AUDIO OUT
M
R
GND
L
GND PRE OUT (AUXIAL)
R
J27
D15A07-125-2468
To VIDEO ASSY
CN27 (➡ SCH-4)
-12
-12
5
11.5
0
12
2SA1048-T
Q603
Q605
Q601
DTC143E3-T
R633 10.0k
R634 10.0k
R635 22.0k
R636 22.0k
R681 10.0k
C615 100/25
AUDIO MUTE
LEVEL SHIFT
5
0
11.5
R682 10.0k
Q604
Q602
Q606
12
REC MUTE
⇨ : Audio signal
▨ : Echo signal

REAR ASSY **SCH-7**

PCB-5

A

REAR ASSY


PIONEER
AWZ
3985
3462
3960
4076
CN26
TO AUTO
VCR
LO MID HI ST MONO
TAPE/AUX
LO MID HI ST MONO
CABLE
ST MONO
VR601
Q601 Q605
Q603 Q604
Q606 Q602
VR602
IC603
VR603
Q610 Q615
Q609 Q613
Q614
IC601
Q612 Q618 Q617
Q611 Q608 Q607
IC602
LD
VCR
CABLE
TAPE/AUX
REC
OUT
ADAPTOR
IN
R L
FROM TONE
CN12A
ADPT OL
GND
ADPT OR
ADPT IL
ADPT IR
R.M.
PRE OL
PRE OR
To REAR ASSY
J26
To TONE ASSY
J12
TO VIDEO
To VIDEO ASSY
CN27
REAR ASSY
AWK
1532-A
1435-A
1508-A
1515-A

B

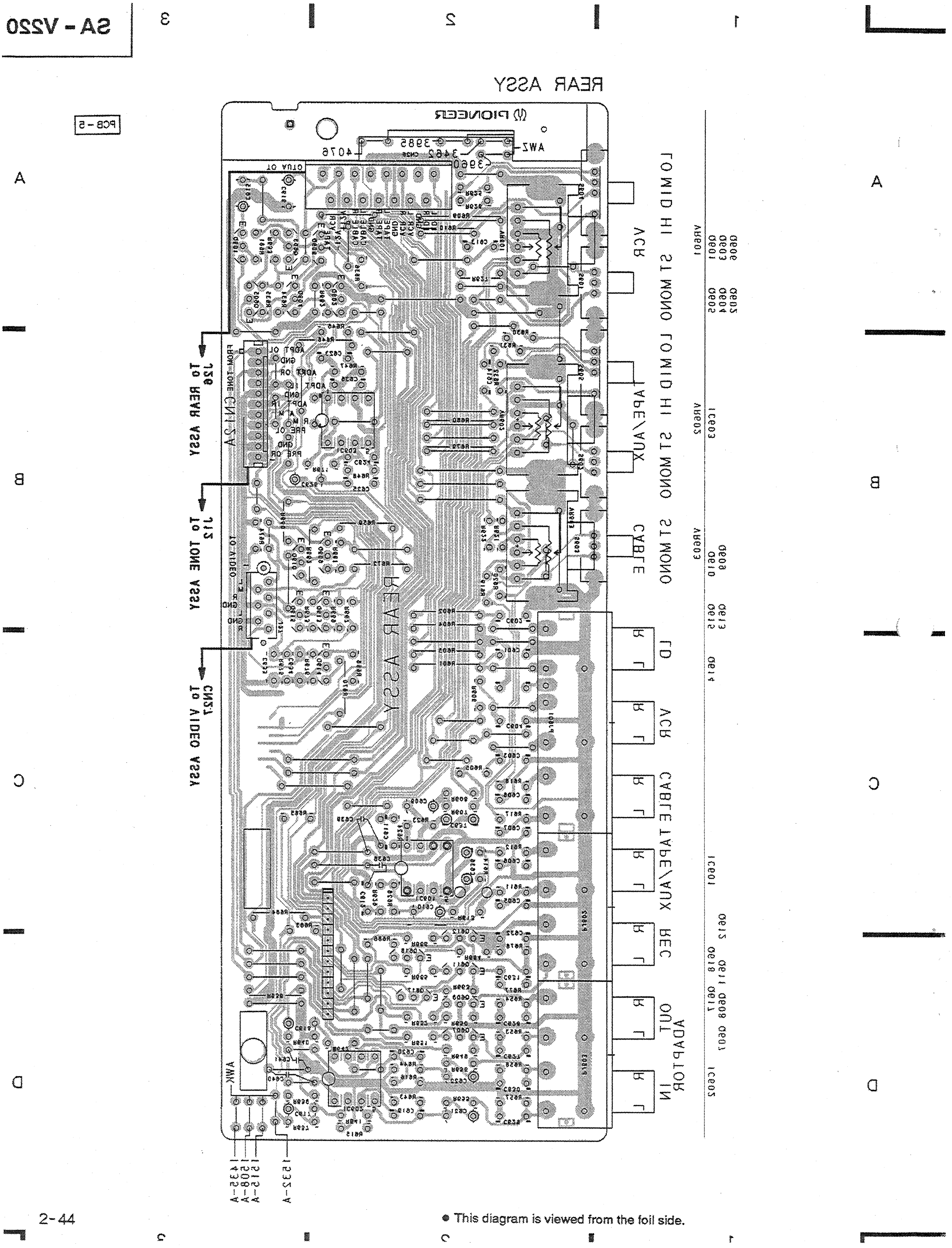
C

D

- This diagram is viewed from the mounted parts side.

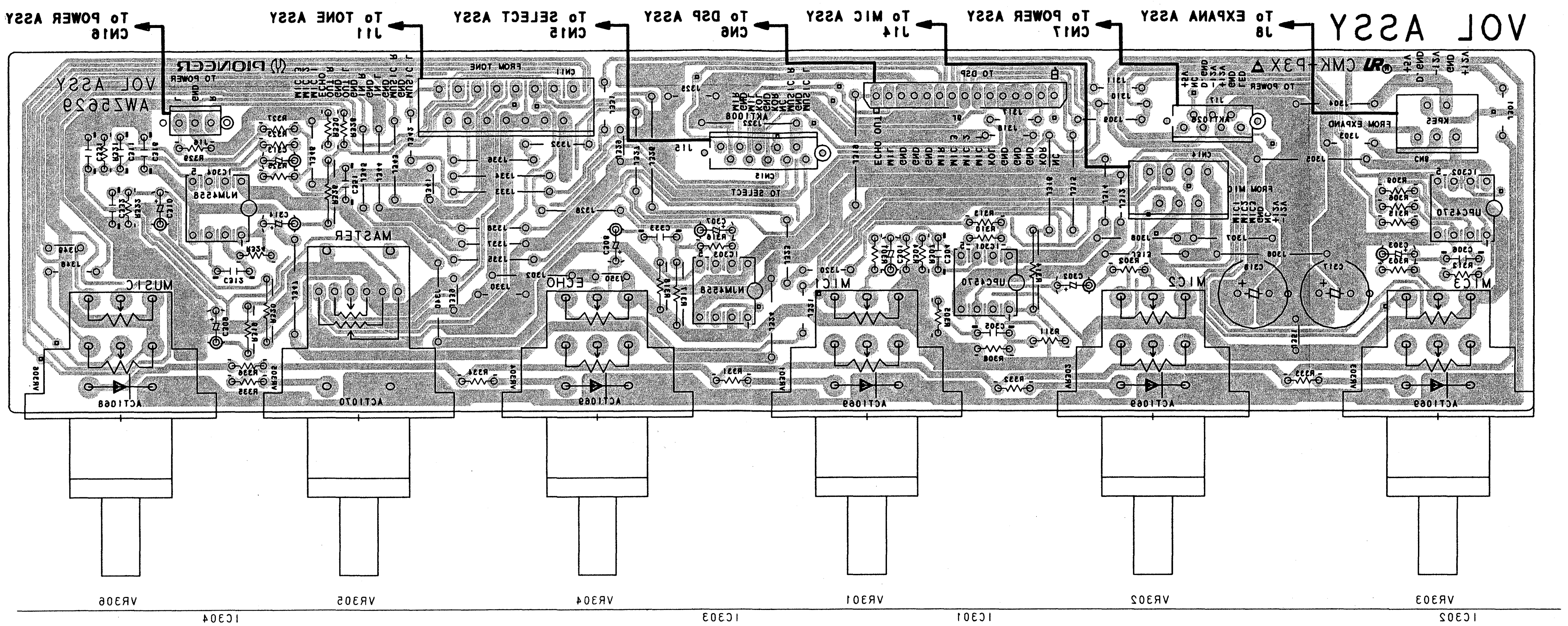
PCB – 5

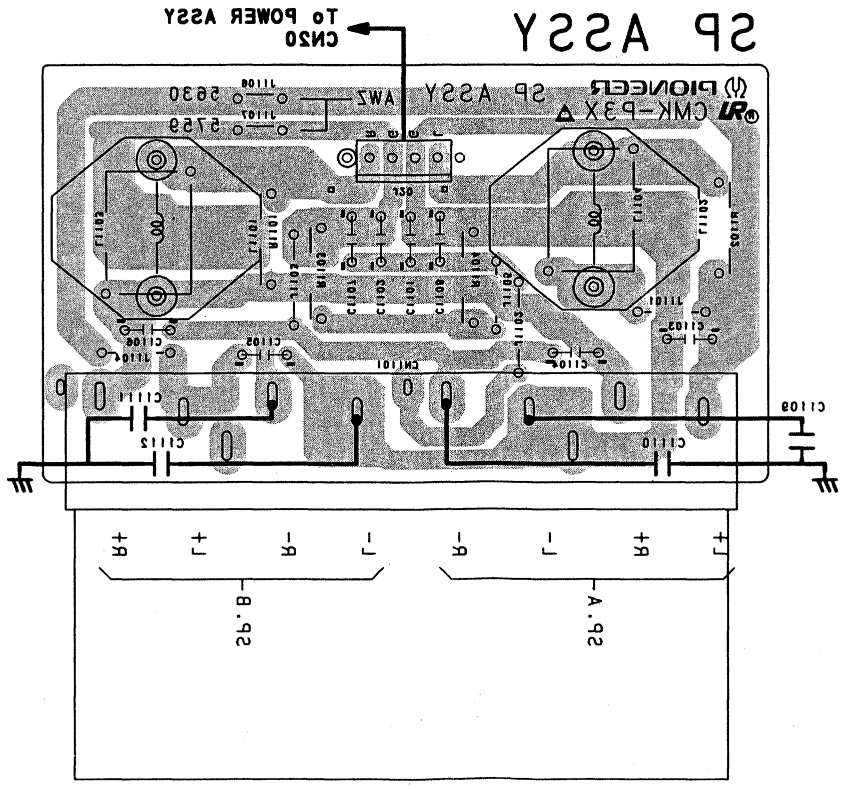
REAR ASSY


3
2
1
A
B
C
D
PIONEER
AWZ
3985
3462
3960
4076
CN36
OLUV OL
LO MID HI ST MONO LO MID HI ST MONO LO MID HI ST MONO
VCR
TAPE/AUX
CABLE
LD
VCR
CABLE
TAPE/AUX
REC
OUT
ADAPTOR
IN
R
L
VR601
VR602
VR603
IC603
IC601
IC602
CN12A
To REAR ASSY J26
To TONE ASSY J12
To VIDEO ASSY CN27
TO VIDEO
REAR ASSY
AWK
A-435
A-508
A-515
A-532

● This diagram is viewed from the foil side.

2.2.8 VOL AND SP ASSEMBLIES

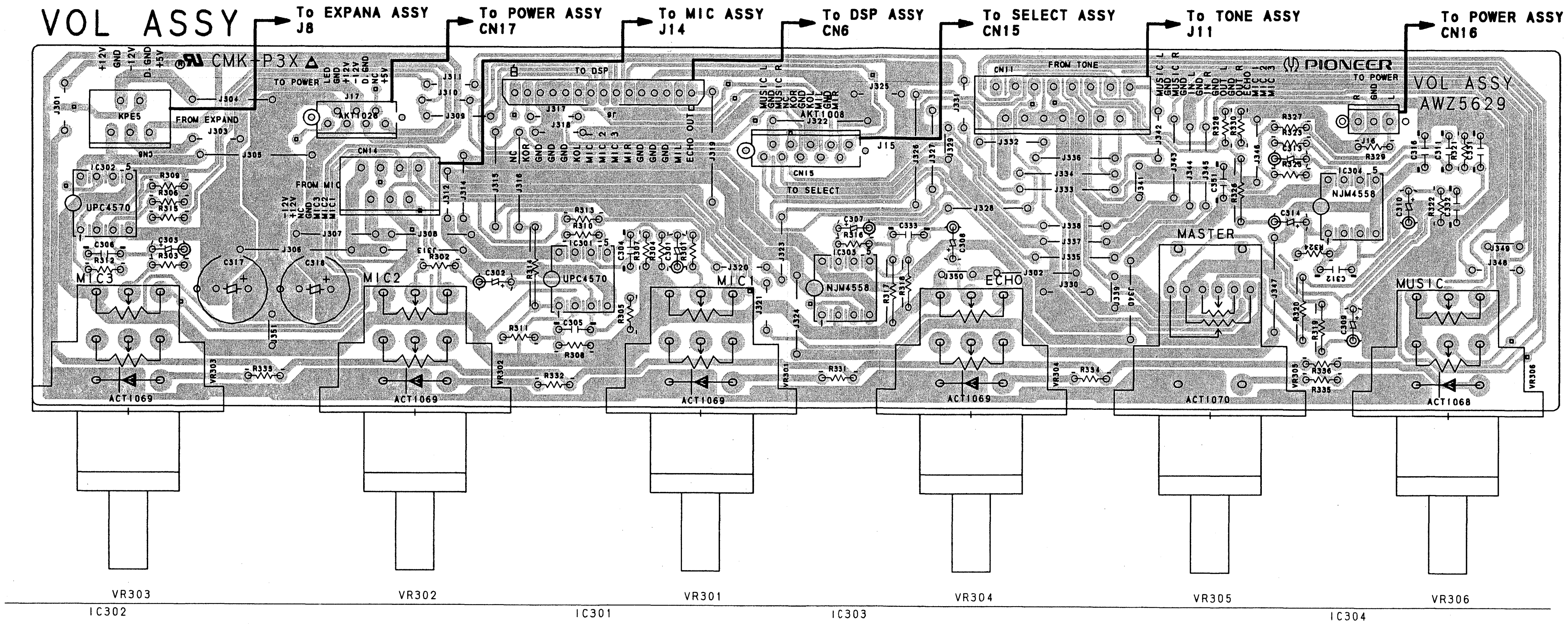

VOL ASSY
To POWER ASSY CN16
To TONE ASSY J11
To SELECT ASSY CN15
To DSP ASSY CN8
To MIC ASSY J14
To POWER ASSY CN17
To EXPANA ASSY J8
PIONEER
AWZ5629
CMK-P3X
MUSIC
MASTER
ECHO
MIC1
MIC2
MIC3
NJM4558
UPC4570
ACT1068
ACT1070
ACT1069
VR306
VR305
VR304
VR301
VR302
VR303
IC304
IC303
IC301
IC302

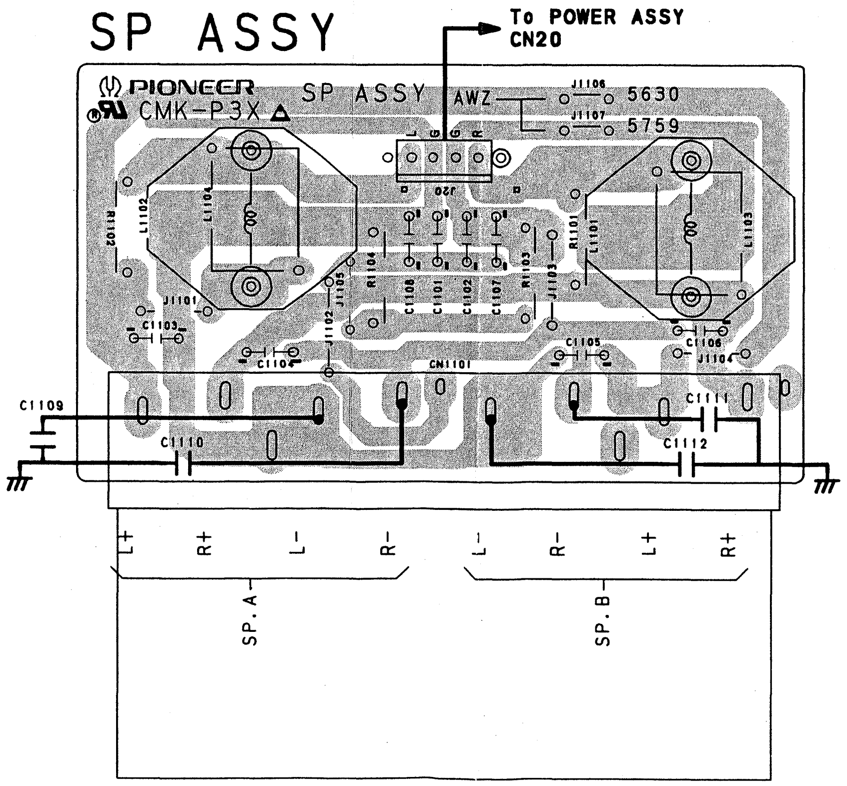

SP ASSY
To POWER ASSY CN20
PIONEER
SP ASSY AWZ5630
CMK-P3X
C1109
C1110
C1111
C1112
+L
+R
-J
-R
SP.A
SP.B

● This diagram is viewed from the foil side.

2.2.8 VOL AND SP ASSEMBLIES

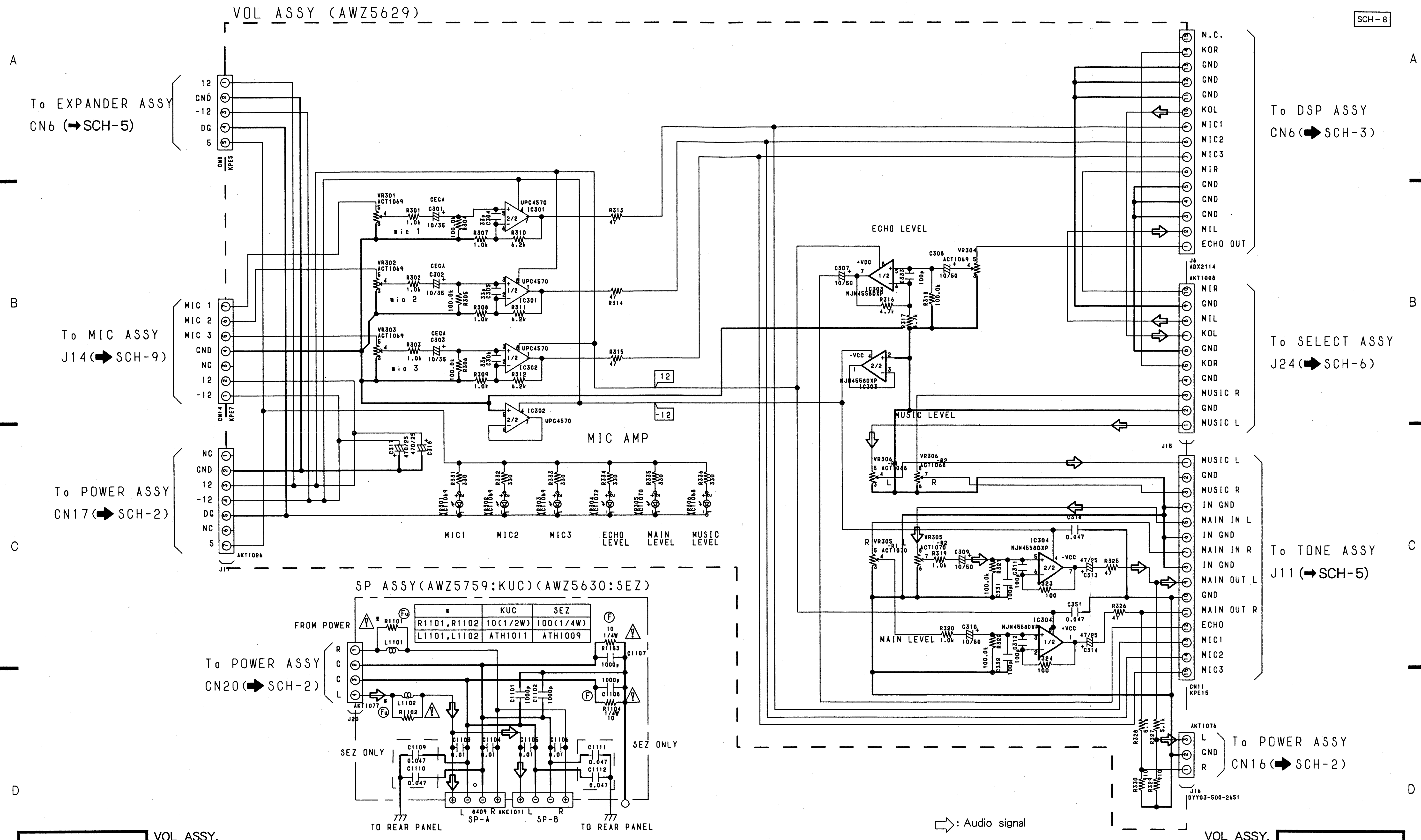
PCB-6


VOL ASSY
To EXPANA ASSY J8
To POWER ASSY CN17
To MIC ASSY J14
To DSP ASSY CN6
To SELECT ASSY CN15
To TONE ASSY J11
To POWER ASSY CN16
CMK-P3X
PIONEER
VOL ASSY
AWZ5629
KPE5
FROM EXPAND
TO POWER
TO DSP
FROM TONE
TO SELECT
FROM MIC
CN14
CN11
CN15
J15
J16
J17
AKT1028
AKT1008
UPC4570
NJM4558
MIC3
MIC2
MIC1
ECHO
MASTER
MUSIC
C317
C318
ACT1069
ACT1069
ACT1069
ACT1069
ACT1070
ACT1068
VR303
VR302
VR301
VR304
VR305
VR306
IC302
IC301
IC303
IC304


SP ASSY
To POWER ASSY CN20
PIONEER
CMK-P3X
SP ASSY
AWZ
5630
5759
J1106
J1107
J20
L1101
L1102
L1103
L1104
R1101
R1102
R1103
R1104
C1101
C1102
C1103
C1104
C1105
C1106
C1107
C1108
C1109
C1110
C1111
C1112
J1101
J1102
J1103
J1104
J1105
CN1101
L+
R+
L-
R-
L-
R-
L+
R+
SP. A
SP. B

- This diagram is viewed from the mounted parts side.

SCH-8


VOL ASSY (AWZ5629)
To EXPANDER ASSY
CN6 (➡SCH-5)
12
GND
-12
DG
5
CN8 KPE5
To MIC ASSY
J14 (➡SCH-9)
MIC 1
MIC 2
MIC 3
GND
NC
12
-12
CN14 KPE7
To POWER ASSY
CN17 (➡SCH-2)
NC
GND
12
-12
DG
NC
5
J17 AKT1026
VR301 ACT1069
VR302 ACT1069
VR303 ACT1069
CECA
C301 10/35
C302 10/35
C303 10/35
R301 1.0k
R302 1.0k
R303 1.0k
mic 1
mic 2
mic 3
R304 100.0k
R305 100.0k
R306 100.0k
C304 33p
C305 33p
C306 33p
R307 1.0k
R308 1.0k
R309 1.0k
R310 6.2k
R311 6.2k
R312 6.2k
UPC4570
IC301
IC302
R313 47
R314 47
R315 47
12
-12
MIC AMP
C311 470/25
C316 470/25
R331 330
R332 330
R333 330
R334 330
R335 330
R336 330
MIC1
MIC2
MIC3
ECHO LEVEL
MAIN LEVEL
MUSIC LEVEL
ECHO LEVEL
C307 10/50
+VCC
IC303 NJM4558DXP
C333 100p
C308 10/50
VR304 ACT1069
R316 4.7k
R317 4.7k
R318 100.0k
-VCC
MUSIC LEVEL
VR306 ACT1068
L
R
VR305 ACT1070
R319 1.0k
C309 10/50
IC304 NJM4558DXP
R321 100.0k
R322
C331 100p
C311
R323 100
C313 47/25
R325 47
C315 0.047
C351 0.047
R326 47
R320 1.0k
C310 10/50
MAIN LEVEL
R324 100
C314 47/25
C332
C312
To DSP ASSY
CN6 (➡SCH-3)
N.C.
KOR
GND
GND
GND
KOL
MIC1
MIC2
MIC3
MIR
GND
GND
GND
MIL
ECHO OUT
J6 ADX2114
AKT1008
To SELECT ASSY
J24 (➡SCH-6)
MIR
GND
MIL
KOL
GND
KOR
GND
MUSIC R
GND
MUSIC L
J15
To TONE ASSY
J11 (➡SCH-5)
MUSIC L
GND
MUSIC R
IN GND
MAIN IN L
IN GND
MAIN IN R
IN GND
MAIN OUT L
GND
MAIN OUT R
ECHO
MIC1
MIC2
MIC3
CN11 KPE15
To POWER ASSY
CN16 (➡SCH-2)
AKT1076
L
GND
R
J16 DYY03-500-2651
R328
R327 5.1k
R330
R329
SP ASSY (AWZ5759:KUC) (AWZ5630:SEZ)
FROM POWER
To POWER ASSY
CN20 (➡SCH-2)
R
G
G
L
AKT1077
J20
R1101
L1101
L1102
R1102
*	KUC	SEZ
R1101,R1102	10(1/2W)	100(1/4W)
L1101,L1102	ATH1011	ATH1009
R1103 10 1/4W
C1107 1000p
C1108 1000p
R1104 1/4W 10
C1101 1000p
C1102 1000p
C1103 .01
C1104 .01
C1105 .01
C1106 .01
C1109 0.047
C1110 0.047
C1111 0.047
C1112 0.047
SEZ ONLY
SEZ ONLY
L R
SP-A
8409 AKE1011
SP-B
TO REAR PANEL
TO REAR PANEL
⇨: Audio signal

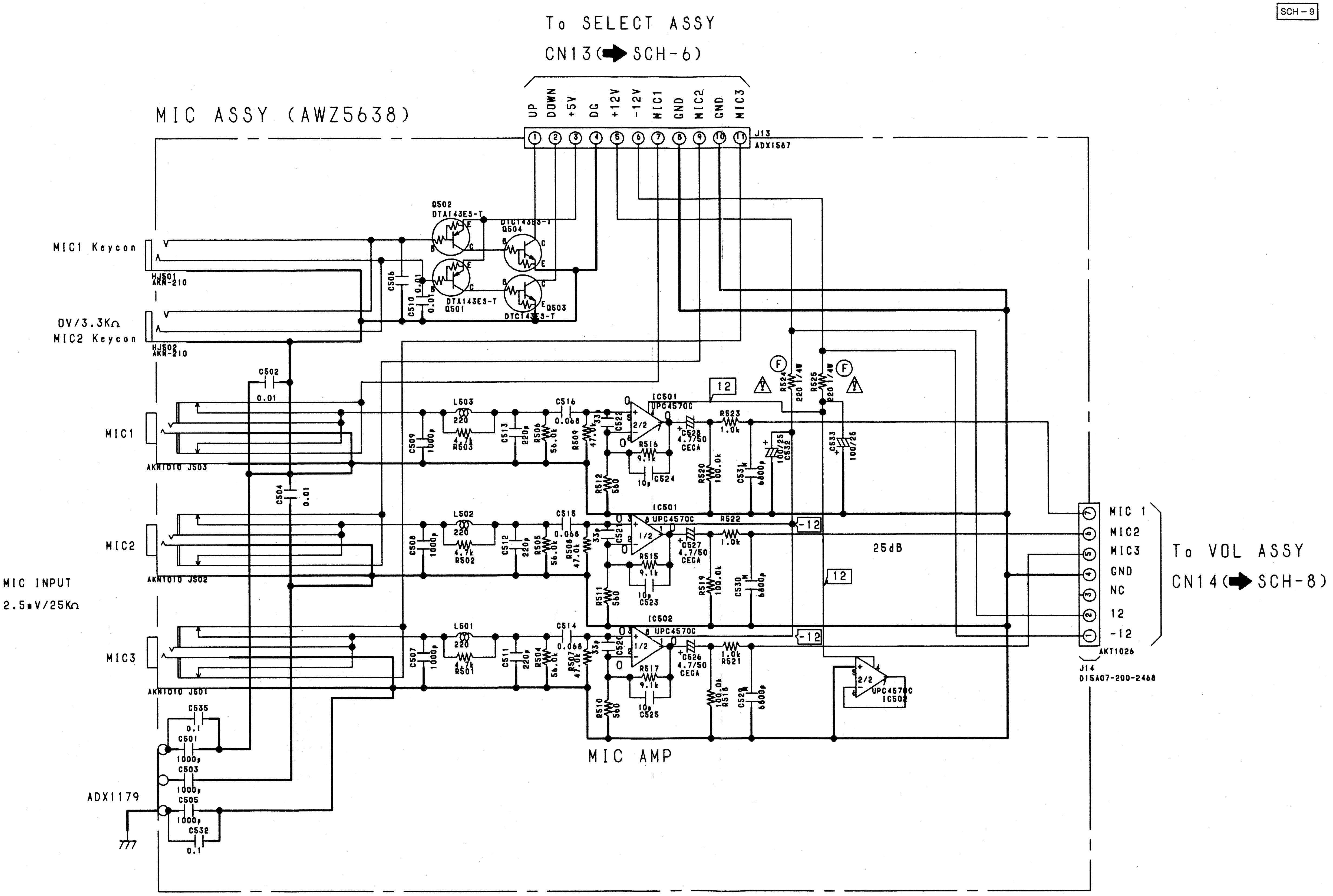
VOL ASSY, SP ASSY

SCH-8

VOL ASSY, SP ASSY

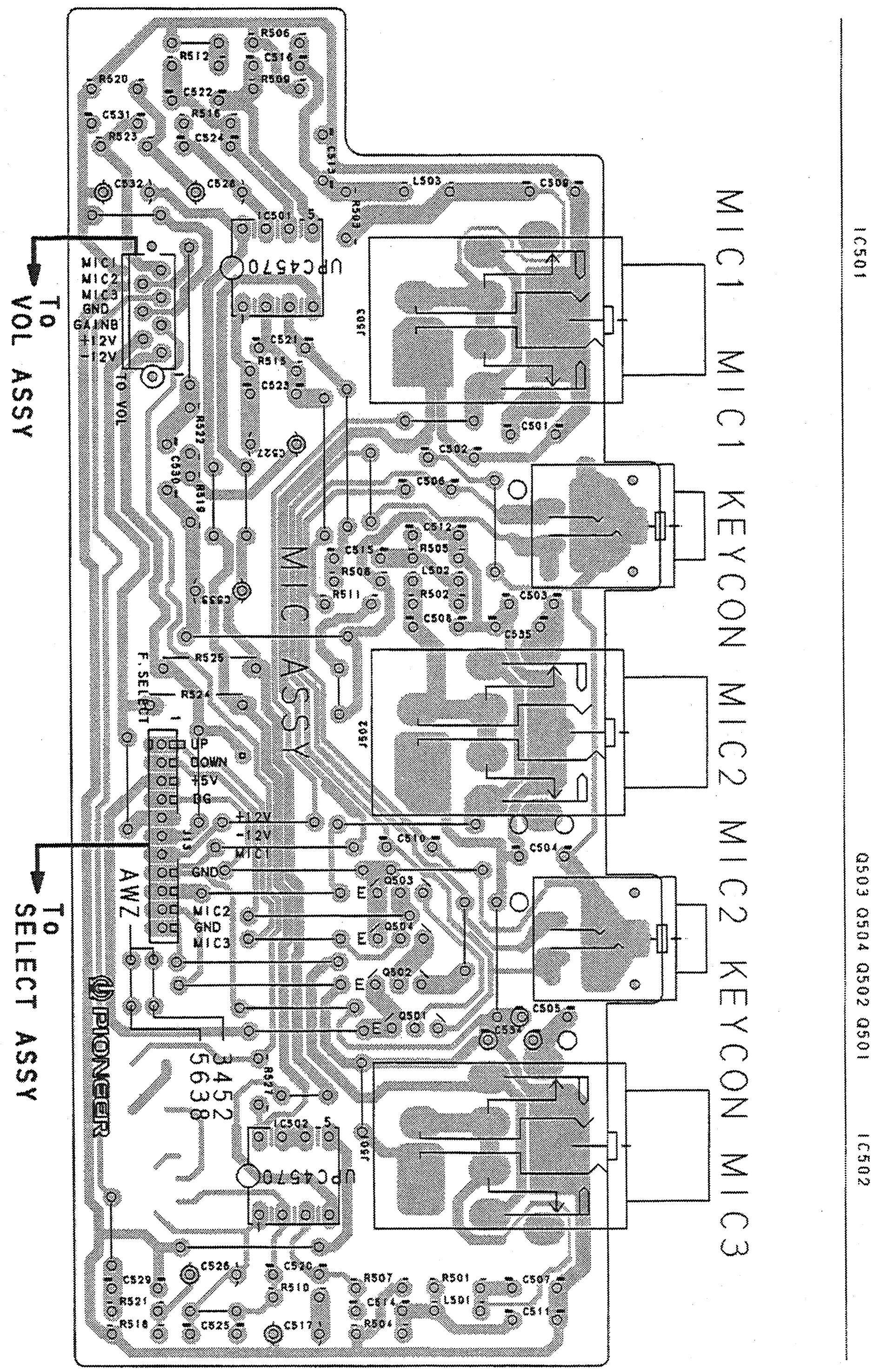
SCH-8

2.2.9 MIC ASSY

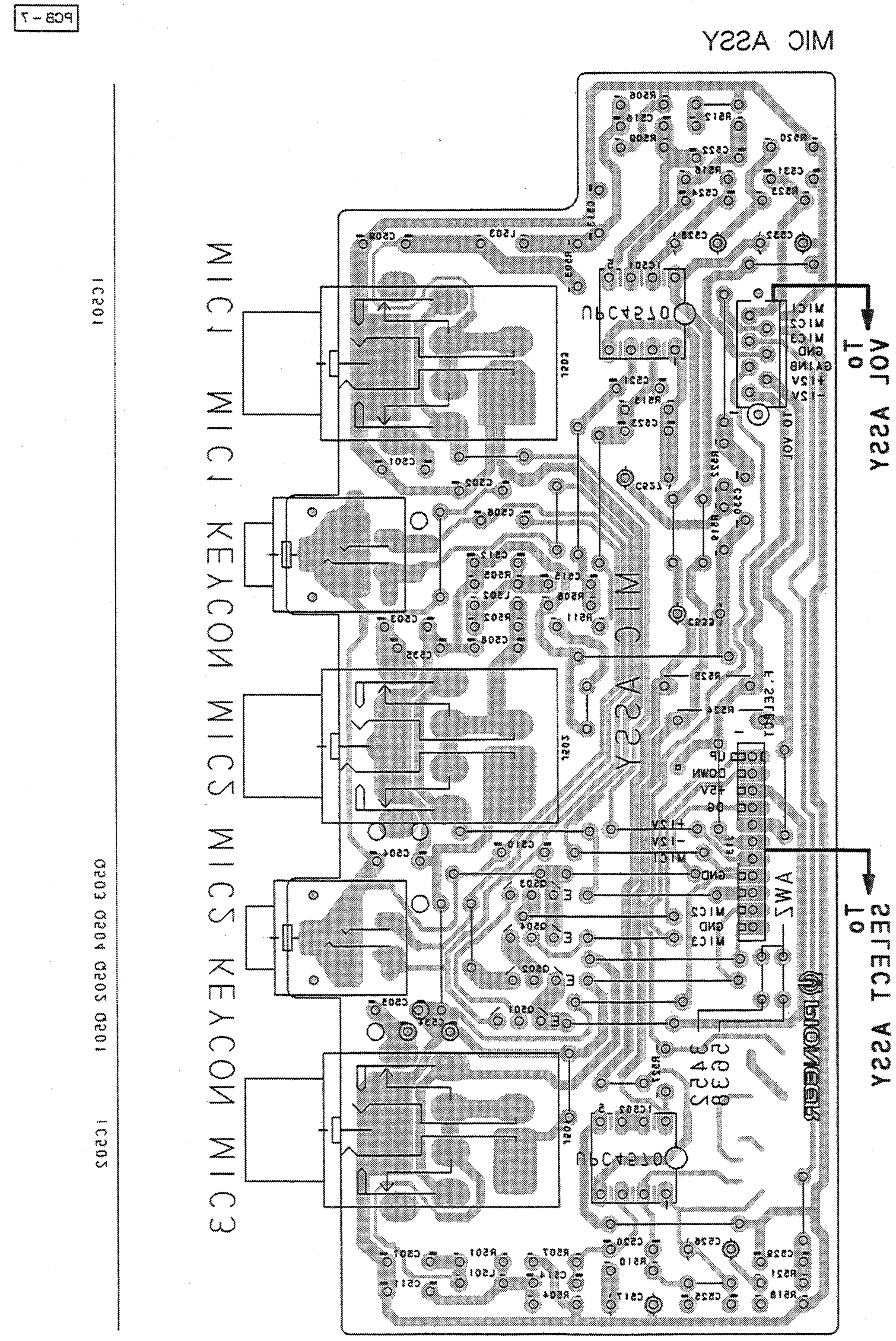

SCH-9
To SELECT ASSY
CN13 (➡ SCH-6)
MIC ASSY (AWZ5638)
UP
DOWN
+5V
DG
+12V
-12V
MIC1
GND
MIC2
GND
MIC3
J13
ADX1567
Q502
DTA143E3-T
DTC143E3-T
Q504
DTA143E3-T
Q501
DTC143E3-T
Q503
C506
C510
0.01
MIC1 Keycon
HJ501
AKN-210
0V/3.3KΩ
MIC2 Keycon
HJ502
AKN-210
C502
0.01
MIC1
AKN1010 J503
C504
0.01
MIC2
AKN1010 J502
MIC INPUT
2.5mV/25KΩ
MIC3
AKN1010 J501
L503
220
R503
4.7k
C509
1000p
C513
220p
R506
56.0k
C516
0.068
R509
47.0k
C522
33p
IC501
UPC4570C
2/2
R516
9.1k
C524
10p
R512
560
C528
4.7/50
CECA
R523
1.0k
R520
100.0k
C531
6800p
C532
100/25
C533
100/25
R524
220 1/4W
R525
220 1/4W
F
12
L502
220
R502
4.7k
C508
1000p
C512
220p
R505
56.0k
C515
0.068
R508
47.0k
C521
33p
IC501
UPC4570C
1/2
R515
9.1k
C523
10p
R511
560
C527
4.7/50
CECA
R522
1.0k
R519
100.0k
C530
6800p
-12
25dB
12
L501
220
R501
4.7k
C507
1000p
C511
220p
R504
56.0k
C514
0.068
R507
47.0k
C520
33p
IC502
UPC4570C
1/2
R517
9.1k
C525
10p
R510
560
C526
4.7/50
CECA
R521
1.0k
R518
100.0k
C529
6800p
-12
2/2
UPC4570C
IC502
MIC AMP
C535
0.1
C501
1000p
C503
1000p
ADX1179
C505
1000p
C532
0.1
MIC 1
MIC2
MIC3
GND
NC
12
-12
AKT1026
J14
D15A07-200-2468
To VOL ASSY
CN14 (➡ SCH-8)

PCB-7

MIC ASSY

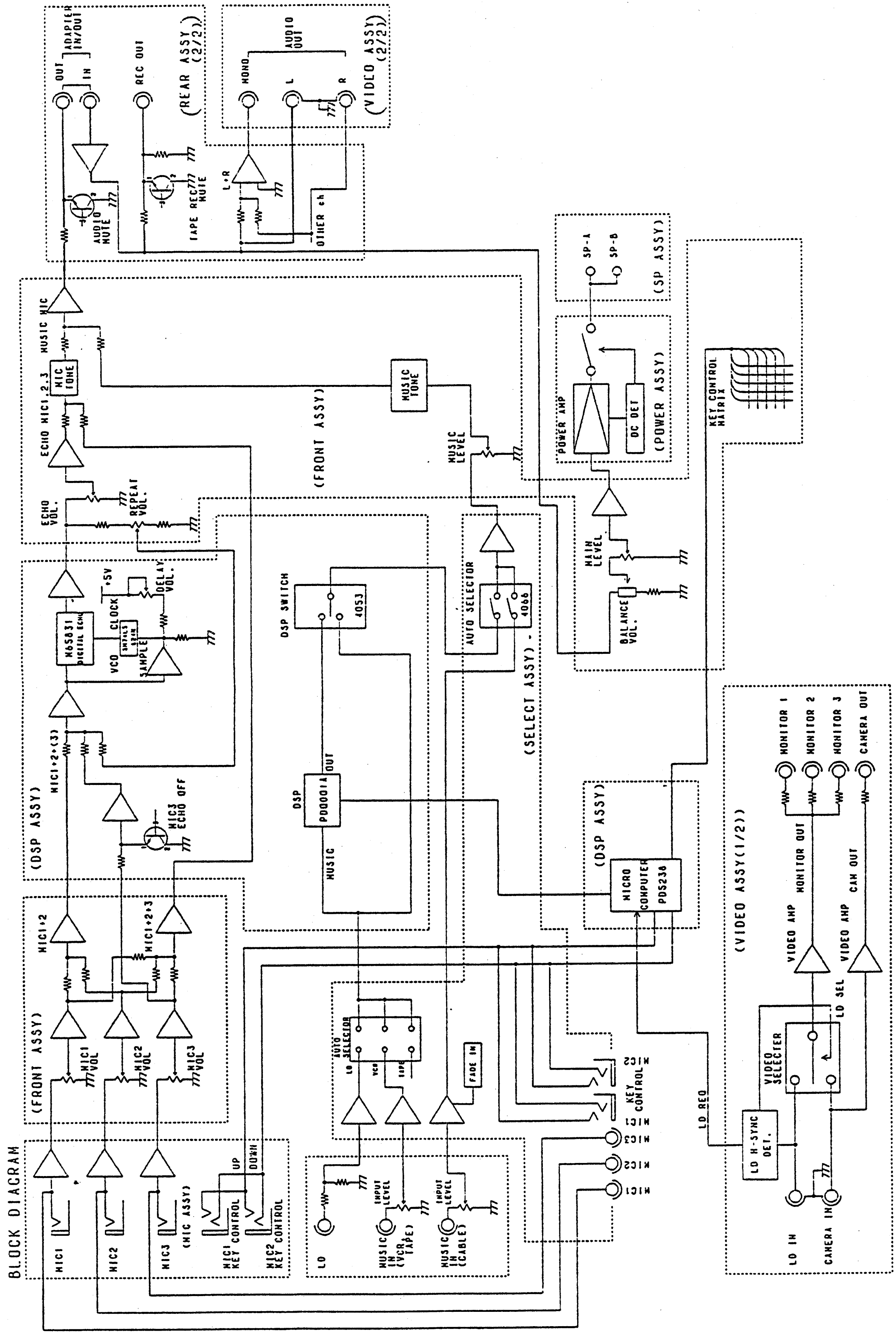

To VOL ASSY
To SELECT ASSY
MIC1
MIC2
MIC3
GND
GAINB
+12V
-12V
TO VOL
F. SELECT
UP
DOWN
+5V
DG
+12V
-12V
MIC1
GND
MIC2
GND
MIC3
AWZ
PIONEER
IC501
IC502
UPC4570
J503
J502
J501
Q501
Q502
Q503
Q504
MIC ASSY
MIC1 MIC1 KEYCON MIC2 MIC2 KEYCON MIC3
IC501
Q503 Q504 Q502 Q501
IC502
R501
R502
R503
R504
R505
R506
R507
R508
R509
R510
R511
R512
R515
R516
R518
R519
R520
R521
R522
R523
R524
R525
R527
C501
C502
C503
C504
C505
C506
C507
C508
C509
C510
C511
C512
C513
C514
C515
C516
C517
C520
C521
C522
C523
C524
C525
C526
C527
C528
C529
C530
C531
C532
C533
C534
C535
L501
L502
L503
3452
5638

• This diagram is viewed from the mounted parts side.


PCB-7
MIC ASSY
TO VOL ASSY
TO SELECT ASSY
MIC1
MIC2
MIC3
GND
GAIN8
+12V
-12V
UP
DOWN
+5V
DG
uPC4570
IC501
IC502
Q503 Q504 Q502 Q501
MIC1 MIC1 KEYCON MIC2 MIC2 KEYCON MIC3
MIC ASSY
PIONEER

• This diagram is viewed from the foil side.

2.3 BLOCK DIAGRAM


BLOCK DIAGRAM
OUT
IN
ADAPTER IN/OUT
REC OUT
(REAR ASSY (2/2))
MONO
L
R
AUDIO OUT
(VIDEO ASSY (2/2))
AUDIO MUTE
TAPE REC MUTE
L+R
OTHER ch
SP-A
SP-B
(SP ASSY)
POWER AMP
DC DET
(POWER ASSY)
KEY CONTROL MATRIX
MUSIC MIC
MIC TONE
ECHO MIC1,2,3
MUSIC TONE
(FRONT ASSY)
MUSIC LEVEL
ECHO VOL.
REPEAT VOL.
MAIN LEVEL
BALANCE VOL.
+5V
DELAY VOL.
CLOCK
M65831 DIGITAL ECHO
VCO
SAMPLE
DSP SWITCH
4053
AUTO SELECTOR
4066
(SELECT ASSY)
MIC1+2+(3)
MIC3 ECHO OFF
(DSP ASSY)
DSP
PD0001A
OUT
MUSIC
(DSP ASSY)
MICRO COMPUTER PD5236
MONITOR 1
MONITOR 2
MONITOR 3
CAMERA OUT
MONITOR OUT
CAM OUT
VIDEO AMP
VIDEO AMP
(VIDEO ASSY(1/2))
MIC1+2
MIC1+2+3
(FRONT ASSY)
MIC1 VOL
MIC2 VOL
MIC3 VOL
AUTO SELECTOR
LD
VCR
TAPE
FADE IN
MIC2
KEY CONTROL
MIC3
MIC3
MIC2
MIC1
LD REQ
LD SEL
VIDEO SELECTER
LD H-SYNC DET.
LD IN
CAMERA IN
MIC1
MIC2
MIC3
(MIC ASSY)
UP
DOWN
MIC1 KEY CONTROL
MIC2 KEY CONTROL
LD
INPUT LEVEL
MUSIC IN (VCR, TAPE)
INPUT LEVEL
MUSIC IN (CABLE)